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EPISTEMOLOGIES OF CHAMPIONS: A DISCOURSIVE ANALYSIS OF CHAMPIONS' RETROSPECTIVE ATTRIBUTIONS; LOOKING BACK AND LOOKING WITHIN

A Dissertation Presented

by

EDWARD K. NORRIS

Submitted to the Graduate School of the

University of Massachusetts Amherst in partial fulfillment

of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 1998

School of Education

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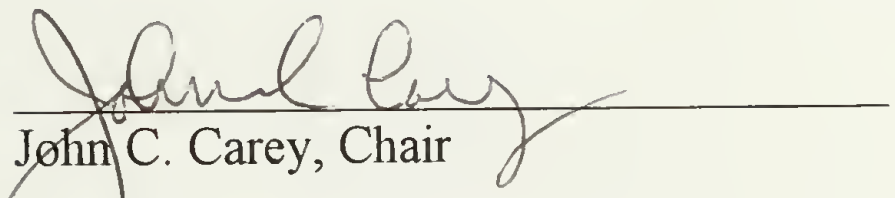
Approved as to style and content by:



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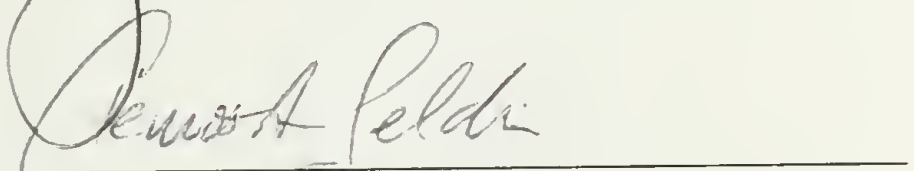

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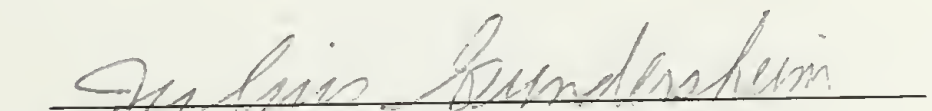

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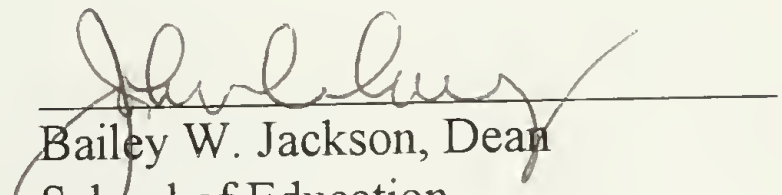

Bailey W. Jackson, Dean
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To my sister, Lee, who knew about living fully and did so with great joy and laughter.

To my mother, Sally, and my father, Edward; they possess qualities of patience, humor, strength, optimism, creativity and perseverence . . . all the province of champions.

To all my family.

And to Kami, who believed, and kept believing.

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I acknowledge Arthur Ashe who was the kind of hero a child can understand and an adult remembers.

ABSTRACT

EPISTEMOLOGIES OF CHAMPIONS; A DISCOURSIVE ANALYSIS OF CHAMPIONS' RETROSPECTIVE ATTRIBUTIONS; LOOKING BACK AND LOOKING WITHIN

MAY 1998

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The intent of this research project was to achieve greater understanding of the developmental and psychological processes of tennis champions.

Phenomenological research design, employing the qualitative in-depth interview was used. Constant comparative analysis, as applied to grounded theory, was used to guide data collection and analysis.

Champions were asked to describe their processes toward championship achievement, and what facilitated their athletic and psychological development. Of particular interest was how they traced their development, which included the following themes: The roles of parents, teachers, coaches and mentors, conceptualizations of mental toughness, process versus outcome orientations to competition, the zone,

triumphing when not in the zone, sportsmanship, regulation of emotion, self-talk, self-knowledge, self-complexity, motivation, confidence, dreams and childhood imaging, goal setting, acting skills when competing, humor, independent thinking, discipline, the history of their personal competitiveness, and their achievement of successfully contending with the psychological pressures of competition.

Common to nearly all the participants was an enduring love of the game of tennis, the joy of competing, and a strong desire to do supremely well and work hard in whatever endeavor the champions pursued.

Correlations with existent literature and previous research were present in the domains of family and social factors, most of the experiential characteristics of peak performance, and the importance attributed to having a coach or mentor who had the ability to relate well personally and professionally. In contrast to some previous research about champions and high achievers, most of these champions had not met an abundance of pain and trauma in their personal lives.

How champions define champion was an area of this research new to the literature. Emergent from the interviews were three styles of definition: External, reflecting accomplishment; External--Internal, meaning accomplishment and exemplary self-conduct; and Internal, reflecting both model self-conduct--and the value that a champion is one who fully actualizes innate potential. Potential seeking is how most of the champions described their drive for championship development and their orientation to life.

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CHAPTER 1
INTRODUCTION

This study investigates and examines the self-attributions of champion tennis players. Why did they achieve their championship status? Understanding the paths they have negotiated toward success could be useful to coaches, trainers, sport psychologists and counseling psychologists. Such knowledge may assist the development of athletes and others who seek to optimize their skills, talents and dreams. It is acknowledged that various routes lead to success, and that by knowing common denominators of some of the sport's finest competitors, some general guidelines emerge from the study.

Purpose of the Study

> Why then pursue this study? There were at least two reasons. The first was that by nature, humans are inquisitive and some questions refused to leave my mind. What makes a winner? Are there factors which winners have in common? Are there any aspects which unite the diversity of human beings who compete in different sports? Are we looking at human endeavor which transcends the outcome of a contest? The second reason for wanting to discover the factors which made these athletes winners, was my belief that each person has their own gold medal level. (Hemery, 1986, p. 199)

Current and historical epistemologies make numerous claims about the will to win--and "the stuff of champions." Much of the literature about what is required to become a champion is reductionistic--and reminiscent of the literature on grief and surviving the loss of a loved

one: "Indeed an implicit assumption running through many articles on coping is that if people have the right outlook, the right attitude, and the right coping strategies, they can overcome virtually any crisis" (Lehman, Worthman & Williams, 1987, p. 228).

That is, if one thinks the right thoughts, feels the right feelings, employs the right attitudes and coping strategies, the sky's the limit. Exemplary of this orientation is a book by Shad Helmstetter who "starts things off with the arresting statement that as much as 77 percent of what you tell yourself may be working against you" (Plimpton, 1995, p. 107). While this author contends that self-talk is important to success, he has witnessed competitors who, ironically, derogated themselves for their *negative* self-talk. This becomes a complicated maze. Must one talk well to oneself--and then talk well of the talk itself? And then, "walk the walk." Talking the talk, walking the walk, and, incidentally, hitting the shots, becomes an enormous series of demands.

However, numerous ideas prevail regarding why some persons achieve success in their chosen endeavors. They range from a purely genetic explanation, to explanations favoring an environmental rationale. In the world of championship tennis, athletes' attributions regarding why they have been successful are abundant, but generally take the shape of brief post-match interviews wherein the verbal expansion of champions' ideas about their successes are minimized by an oncoming commercial.

The purpose for conducting this study was to determine what attitudes, characteristics, qualities, and life itineraries tennis champions

had--and shared. In the author's work as a tennis teaching professional, a therapist, and sport psychologist, he has often wondered what factors contribute to some athletes reaching the pinnacle of sporting success. Accurate conclusions could help others achieve what they hope for--both in and out of sport. Is the development of successful competitive abilities a useful life resource for stressful times in the lives of these athletes? Finally, might some of the attributes and behaviors of champions be instructive for the achievement of any endeavor--in or out of the sporting arena?

> Perhaps there were some aspects which could be learned from the very best, that would allow each performer the chance to raise his or her level, bringing them closer to fulfilling themselves and their potential. (Hemery, 1986, p. 199)

Understanding how an individual achieved outstanding success in any one area (sport, academic, career) may orient others who wish to succeed in their chosen endeavor, however discrepant that may be from the subject of this study.

Significance of the Study

Analyses have been conducted and suggest how various high achieving athletes have pursued and eclipsed their goals and aspirations. In Ron Woods' (1987) A Survey of Champions (a study of tennis champions), respondents answered numerous questions regarding their championship development and demographic factors which related to their familial and sporting development. When the author of this study

spoke with the researcher of the above mentioned study, he said: "It could be very useful to do what you propose . . . a study of other and some more recent champions than were in my study. . . . The world is very different than when they were champions--and their own maturational development may have affected how they view their early achievements" (Ron Woods, Ph.D., Director of Player Development for the United States Tennis Association, personal communication, 1997).

At present, an in-depth phenomenological study of the development of tennis champions does not exist. What do exist are multiple sport analyses, demographic surveys, and the many post-victory interviews conducted by commentators, which are limited by television network interests and demands.

Tennis is a sport whose young participants often harbor lofty goals and high aspirations. Some champions have visualized their ultimate triumph over and over again twenty years before their grand slam victory. When Yannick Noah won the French Open for his home country, he told a commentator: "I've won this championship in my mind thousands and thousands of times, ever since I was bashing the ball against the wall as a small child." Many high aspiring young athletes, however, become disillusioned with competition long before they have emerged from junior development programs. Many become emotionally shattered by a match they lost but felt they should have won. Others become disturbed by parents' over-involvement in their sport, and still others turn to drugs either before--or as a result of not progressing as well as they had anticipated. What is not available is a "map" which delineates the

itineraries and hardships tennis champions have experienced . . . a narrative about how they endured loss--and how they coped with the pressures inherent in being a champion. In 1972, when Stan Smith won the Wimbledon Championships (often called "the Olympics of tennis"), he was in Amherst, Massachusetts the very next day, fulfilling a commitment to give a clinic to hundreds of children. When they looked up to him, he was no longer Stan Smith, he was a type of god--overnight.

American tennis prodigies have topped lists of champions in the recent and distant past. However, for unknown reasons, champions of the near future do not appear to be on the horizon of American junior development tennis programs.

> . . . no group of players has monopolized the rankings like the American men in the 1990's. . . .
>
> However . . . not only are there few young Americans ranked in the top 100 on the men's tour, there are even fewer juniors ranked by the International Tennis Federation. . . . One inescapable fact is that Americans have had dismal results in junior grand slam tournaments. (Huber, September 16, 1997, Sarasota Herald-Tribune, p. C13)

The research conducted is significant because the questions explored are important for developing athletes and aspiring champions, and because they had been insufficiently explored. Until the present it was inaccessible knowledge only because these topics had not been adequately dislodged and investigated. Some questions had been satisfactorily answered. Other questions had not been asked in a

systematic way. Still other questions had been asked but the responses were not organized. An understanding of champions' responses to the proposed research investigation is relevant to the aspiring tennis player, his coaches and sport and counseling psychologists. They also could be useful to anyone seeking supreme competence in any pursuit.

> What really counts is for us to be able to fulfill our potential in whatever way we choose. And the awareness of that possibility--that right--is only the beginning. (Billie Jean King, cited in Ungerleider, 1995, Foreword)

There is a paucity of in-depth information which might lend to an understanding of how top-flight tennis champions develop and triumph. Discovering a single path to reach success did not emerge from the research--nor was it the goal of the study. However, some successful common denominators of various paths were uncovered in the research processes. These "threads" of success could be useful to future competitors and champions.

Data yielded from statistical reviews, interviews, and questionnaires of champion tennis players have revealed various interesting demographic and familial information about athletes and their development. Those studies are relevant and significant. However, with one exception (Woods, 1986), these studies are of athletes from an array of different sports. The author contends that because different sports require different psychological skills and strengths from the competitor, they are worthy of independent study. In a research study about the analysis of peak performance characteristics, its authors said: "Whether a sport is an

individual sport or a team sport, whether a sport involves continuous action (e.g., endurance sports) or interrupted action (e.g., tennis, golf, baseball), whether a sport offers rapid and direct feedback, and whether a sport is conducive to performance rituals and routines may have an impact on perceptions of optimal performance" (McInmann & Grove, 1991). Cohn, (1991) and Snyder & Brewer, (1994) emphasize the need to research the qualities of peak performance in dissimilar sports. Likewise, there is a need for researchers to examine the multiple qualities of peak performers in *same*--and dissimilar sports. When the context of study is a single sport, categorical parameters of experience can be established. Since such knowledge hasn't been sufficiently culled from champions in the "single sport" of tennis, the significance of this study lies in unearthing information which could facilitate efforts at supreme achievement by aspiring individuals, teams and potentially groups of people in other pursuits.

CHAPTER 2
REVIEW OF THE LITERATURE

Who Triumphs and Why?

While attention in early sport psychology studies (about those who excel in sport) focused on motor skills, agility, foot speed, physical strength, motivation, and personal demographic factors, there is a dearth of information which has addressed the emotional, intellectual, social and psychological strengths and resources necessary to become a champion. Few studies have investigated the comprehensiveness and complexity of champions' itineraries to success and their experience once there. What follows are summations of several studies which examine the above-mentioned intangible factors of championship development.

In 1986, nearly two decades after breaking a world record in the 1968 Olympics, David Hemery published a manuscript about his study with high achieving athletes. In it, he directed a vast array of questions to numerous champions, through an interview procedure. In general, he sought information about champions' vocations, their primary, secondary and other influential relationships, aspects of family history, general work habits, insights about personal styles of conceptualizing projects, and their attentional styles and attitudes. He also pursued whether the athletes thought their successes were fate--or work-derived. Many interesting and some amusing responses emerged: Gary Player responded: "It's funny, you know, the more I practice, the luckier I become!" (Hemery, 1986, p. 169).

> In sum there was . . . a general recognition that ultimate success relies on proper timing and opportunity. Also it is necessary to consider how you can influence your own future fortunes by taking positive action. The recognition that timing and opportunity are vital for achievement makes one aware just how important it is to provide positive opportunities for aspiring youngsters. (Hemery, 1986, p. 169)

In Quest for Success, (1995), Dr. Steven Ungerleider undertook an extensive project when he interviewed former Olympic athletes. He studied only those athletes whom he credited with both high achievement in their sport--and in their lives after their athletic careers were over.

Ungerleider conducted a study with "fifty-one of the most talented and gifted achievers of this nation" (Ungerleider, 1995, p. ix). His efforts were oriented toward discovering how they achieved dual successes in their chosen sport--and in their lives after athletics. His "manuscript probes the discipline, perseverance, and resiliency that assisted these great achievers with rising to the very pinnacle of their sports and their life's goals" (Ungerleider, 1995, p. xiii). He discovered five elements that describe the processes of those athletes who have seen the great heights. The five elements of these supreme achievers are succinctly summarized on the back cover of Ungerleider's Quest for Success:

Focus: "With my dyslexia, God took something away from me in one area, but he gave something special back in another. Your job is to find that niche. I found it in athletics. You may find it anywhere, but your job is to find it" (Bruce Jenner, Decathlon Olympic Gold Medal, 1976).

Desire: "Identify your real passion or desire. The passion is the energy that keeps you going" (Mary Osborne Andrews, Javelin, 1980 Olympic Team).

Aggressiveness: "You've got to take those chances. It's about being on the edge, if not over the edge. Find that edge for yourself, then push yourself. As time goes by, that threshold gets higher and higher" (Steven Mahre, Slalom Olympics Silver Medal, 1984).

Perspective: "The journey of training is just as important as the competition and end results. What is important is not where you end up, but the journey to arrive there" (Holly Flanders, Skiing 1980, 1984 Olympic Team).

Perseverance: "When you feel committed to a goal, the one thing you never do is give up. Never quit! If you want something, you've just got to keep going after it. You'll find a way to make it happen" (Milt Campbell, Decathlon Olympic Gold Medal, 1956).

In Dr. Ungerleider's study, he was surprised by the high incidence of pain and trauma experienced by many of the highest achieving athletes. "My . . . revelation was that many participants in my research study had experienced a great deal of pain and trauma in their lives. Most chose to use this negative energy as a learning lab and shift the focus into a positive experience" (Ungerleider, 1995, p. ix).

In The X Factor, George Plimpton (1995) explores a study of the ingredient that appears to be a constant for those who are enormously successful:

> The "X Factor" I called it, though it is a quality which goes by many aliases: competitive spirit, the will to win, giving it 110 percent, the hidden spark, Celtic green . . . guts, the killer instinct, elan vital, having the bit in one's teeth, and so on--qualities which if synthesized into a liquid form and corked up in a bottle could be sold by the millions. (p. 7)

He describes a conversation with Bill Curry, a former all-pro center in the 1970's who has had a successful coaching career with Georgia Tech, Alabama, and the University of Kentucky. A particular characteristic that he believes all champions possess is described as follows:

> One example of a player who had it was Willie Davis, the great defensive end at Green Bay where Curry played his rookie year before going to the Colts. One afternoon Davis had given him a kind of mental tip that he had used to motivate himself. He had used it ever since a game the Packers lost against the Eagles back in the 1960's. As he left the field at the end of the game, Davis had turned around, the stands emptying, and he realized that he was leaving something on the field--namely, regrets that he had not given the extra effort, the extra push . . . and that he was going to have to live with that regret for the rest of his life because there was no way that he could recapture that moment. He made up his mind then that he would never look back at a football field or even a day's effort at what he was doing with any sense of regret. Curry described watching Packer game films when the outcome was long decided and how he always marveled at Davis's white-heat intensity throughout, never dogging it, or taking it easy. "It may be that small moment in his life which provided him with his X Factor." (Plimpton, 1995, pp. 38-39)

Curry went on to give his summation of what he believes the composition of a champion is:

> So, in short, champions have the capacity to focus; they have a singleness of purpose. They are unselfish--able to give when others can't and when there's no apparent reward. They are tough--meaning tough endurance wise but also meaning willing to follow the rules when the competition will not; they are smart; and they just never quit. I think it goes across the board: business, politics, sports, life. (Curry, cited in Plimpton, 1995, p. 43)

Dr. Ron Woods, in his Survey of Champions, conducted an extensive investigation of former tennis champions from the United States. Participation in his survey (by invitation only) was unusually high. Of 51 champions invited, 24 (nearly 50%) agreed to participate. In the study, Dr. Woods explored various data which drew information from participants' early and developing years, their personal characteristics and their attributions of success. Examples of questions participants were asked include: At what age they first started to play tennis, how they were introduced to the game, descriptions of their early coaching and competitive experiences, any "catalysts for . . . determination to become a champion" (Woods, 1987, p. 10), numbers of hours a week devoted to tennis, other sports played, factors that were critical to becoming one of the best tennis players in the world, attributions for personal motivation, roles of parents, coaches and mentors, personality characteristics that the participants viewed as common amongst tennis champions, and physical characteristics perceived as common among the best tennis players in the world. Dr. Woods recognized that "the psychological factors of drive, motivation and emotional control were consistently identified as the critical separating

factors between champions and those who achieved lesser results" (Woods, 1987, p. 1).

The quality of champions is often expressed in ethereal terms:

> Billy Talbert, the tennis star, was the first person I ever heard use that term [the X Factor]. In Paris, in the 1950's, somebody had asked him what constituted winning a championship. He replied that an X Factor was involved. Pressed on what that meant, he said he was using the word to describe a quality beyond natural gifts. In a close match, the outcome is determined by only 3 or 4 points, what he called "swing points," and the winner of these points, Talbert said, is usually endowed with this mysterious component. Added to the player's natural ability, it provides a kind of boost, like an afterburner kicking in. Talbert himself was the embodiment of the X Factor--slight, not especially fast, certainly not overpowering, and yet through savvy, spirit, and determination, he had run up an astonishing record. (Plimpton, 1995, p. 27)

"Mystery" is how this phenomenon (winning a championship) is often accounted for.

Typology and Dimensions of Human Experience

> To see a world in a grain of sand,
> And a Heaven in a wildflower,
> Hold Infinity in the palm of your hand,
> And Eternity in an hour.
>
> William Blake

Some of the most central and valued experiences of many people's lives are implicitly difficult to describe. Among them are love, religious

and transcendent experiences, "peak experiences," (Maslow 1964), "flow," (Csikszentmihalyi, 1990) "runner's high," and "peak performance" experiences in sport. To the statistician, the descriptions sound subjective, poetic, and lacking in any kind of academic and objectifiable form and data. Necessarily, and by nature, human involvements are "experiential"--and subjective. While not attempting to define such notions as "love," the author will make order and meaning of the above four concepts which are highly related, are often used interchangeably, and have contributed to considerable confusion in and out of the world of sport psychology. Those concepts are: peak experience, flow, runner's high, and peak performance.

The purpose of this section is twofold: (a) to explore and categorize the phenomenology of peak performance, as described by athletes. And (b) to delineate the extant definitional literature on peak performance, as defined and described by academicians, sport psychologists, and journalists.

Peak Experience

> Joseph Campbell, considered the world's foremost authority on mythology, was interviewed for a PBS series shortly before his death in 1987, when he was in his eighties. During the interview Bill Moyers asked him, "How do you explain what the psychologist Maslow called 'peak experiences'?" After a pause, Campbell replied, "My own peak experiences, the ones I knew were peak experiences after I had them, all came in athletics." (Douillard, 1994, p. 4)

"The term peak experiences is a generalization for the best moments of the human being, for the happiest moments of life, for experiences of ecstasy, rapture, bliss, of the greatest joy" (Maslow, 1971, p. 105 as cited in Fadiman & Frager, 1976, p. 333). Peak experiences represent the most valued, joyous and exhilarating episodes of a person's life.

> Maslow notes that peak experiences are often triggered by intense feelings of love, exposure to great art or music, experiencing the overwhelming beauty of nature. . . . One's reactions while watching a beautiful sunset or listening to an especially moving piece of music are examples of peak experiences. (Fadiman & Frager, 1976, pp. 333-334)

Interestingly, such experiences do not necessarily culminate after an especially inspirational or productive day, week, or month.

> The lives of most people are filled with long periods of relative inattentiveness, lack of involvement, or even boredom. In contrast, the peak experiences in their broadest sense, are those moments when we become deeply involved, excited by and absorbed in the world. (Maslow, 1971, p. 175 as cited in Fadiman & Frager, 1976, p. 333)

The experience generally comes as a welcome surprise for whom it is invoked.

In Leach's (1963) description of peak experience, this notion of rarity is highlighted when he reports "that highly valued experience which is characterized by such intensity of perception, depth of feeling, or sense of profound significance as to cause it to stand out, in the

subject's mind, in more or less permanent contrast to the experiences that surround it in time and space" (p.11).

The most powerful peak experiences are relatively rare. They have been portrayed by poets as moments of ecstasy, by the religious as deep mystical experiences. For Maslow, the highest "peaks" include:

> . . . feelings of limitless horizons opening up to the vision, the feeling of being simultaneously more powerful and also more helpless than one ever was before, the feeling of great ecstasy and wonder and awe, the loss of placing in time and space. (Maslow, 1970, p. 164 as cited in Fadiman & Frager, 1976, p. 334)

As depicted by the following anecdote, a peak experience can be extraordinary and momentous:

> A fascinating example of the peak experience was given to me by a woman runner (personal communication):
>
> As I was running back, I suddenly became aware of the environment in an unusual way--the sun and shade and trees and grass and sky were becoming part of me, or better yet--me part of them. My awareness and sensitivity took a quantum leap into a place I'd never been before.
>
> The next sensation was one that I hope to have again because it was incredible. There was an incredibly strong sense that my whole life was leading up to that very moment--all the anguish, all the joy, all the running. About the time that I grasped the past and present, the future began unfolding--no specifics but a . . . sense of me in time and space that went beyond that moment into a future. It was both awesome and comfortable, reassuring. (Sachs, 1984, p. 279)

The peak experience, as described by Maslow, is characterized by numerous affective descriptors. A witness, listening to the account, would liken the experience to that described by a user of the drug LSD. The experience is described as transcendent, mystical, joyous, powerful, and sometimes, ironically, helpless.

Flow

As a child, Mihaly Csikszentmihalyi witnessed the ravages of war upon human lives. In the midst of mass suffering, he observed that despite heinous and tragic acts, while some people became both physically and psychologically maimed, others maintained the ability to be absorbed, challenged, and content despite deplorable conditions.

After he and his research team (using the Experience Sampling Method) conducted over 8,000 interviews with subjects, they summarized eight components that were consistent with the ability of humans to become absorbed in their tasks, to find meaning, and enjoyment. "What is still intriguing to me after all my studies is that no matter what the activity . . . the feeling I have now identified as "flow" is reported by people when they are totally involved and satisfied with what they are doing at the moment" (Csikszentmihalyi, 1994, p. 4).

He defines flow as "a state in which you are so involved in an activity that nothing else seems to matter. The experience itself is so enjoyable that you do it for the sheer sake of doing it. Consciousness is harmoniously ordered. Your attention is singularly focused like a laser beam" (Csikszentmihalyi, 1994, p. 5).

He identifies the following eight components of "flow":

1. A Clear Goal

He suggests that having a clear goal within an activity facilitates the process of "flow." The clearer the rules and goals are, the more likely that "flow" will result.

2. Feedback

When playing a musical instrument, when striking the wrong note, it is immediately apparent to the musician. "Almost any kind of feedback can be enjoyable if it is related to your goal." (Csikszentmihalyi, 1994, p. 6).

3. Challenges Match Skills

"Flow" is most likely to occur when there is a balance between the demands of the activity one is engaged in--and one's ability to succeed at the task.

4. Concentration

Split attention is a general experience described by many people. In contrast, "flow" is an undivided "beam of concentrated energy" (Csikszentmihalyi, 1994, p. 6).

5. Focus

A feature of intense focus is in the present moment of experiencing. Worries and problems fade and no longer capture the attention of the person in "flow."

6. Control

One senses the possibility of control when in a state of flow. There is the risk of loss of control, but the over-riding feeling is that control is within one's grasp.

7. Loss of Self-Consciousness

There is the perception that one has transcended processes of self-monitoring and self-judgment. There is the sense of forgetting oneself.

8. Transformation of Time

The passing of time becomes distorted. It does not necessarily transpire faster or slower.

> Hours may seem like minutes when you are so absorbed in whatever you are doing that you don't notice time is passing. Or, in contrast, seconds may seem to last for minutes, as in the case of a ballerina doing a pirouette on her toes or a firefighter pulling a child from a smoke-filled building. (Csikszentmihalyi, 1994, p. 6)

> Csikszentmihalyi (1975a) described flow as a common experiential state found in play and, under some conditions, in other activities. Flow is defined as enjoyment, an intrinsically rewarding, or autotelic, experience. People seek flow primarily for itself. They enjoy it. (Privette, 1983, p. 1362)

Flow has been organized into degrees of enjoyment. "Microflow" (Privette, 1983) is a measure of activity, generally derived from repetitive movements . . . that can bring some pleasure. And, there is the descriptor for great pleasure (macro flow) that is most often found in games and play which have "patterns of action which maximize

immediate, intrinsic rewards to the participant" (p. 21). "The activity itself is rewarding. A key to the flow situation is challenge that matches skill. When this fit occurs, there is flow, standing outside of boredom and anxiety" (Privette, 1983, p. 1363). The flow state does not necessarily imply superior performance. Rather, flow is more reflective of intrinsic pleasure in the act of play.

Studying the constructs of flow (the eight factors) with elite figure skaters, Susan Jackson found "close agreement between the skaters' perceptions of flow and theoretical descriptions of the flow construct. Both the qualitative and quantitative responses provided support for the existence and importance of Csikszentmihalyi's (1990); (Csikszentmihalyi & Csikszentmihalyi, 1988) eight components of flow, almost without exception" (Jackson, 1992, p. 177). The flow characteristic that athletes did not concur with was number 7, [above]: "Loss of Self-Consciousness." It appears that the figure skaters did not attribute self-consciousness to decrements in performance. Future research should evaluate if there are some sports wherein performance is enhanced--or hindered by this characteristic.

Csikszentmihalyi described the phenomenon most articulately when he reported: "When experience is intrinsically rewarding life is justified in the present, instead of being held hostage to a hypothetical future gain" (Kimiecik & Stein, 1992, p. 148).

"There is a wealth of information available from athletes about what flow is like, and what they feel are the important antecedent factors

to flow states . . . it is through the psychological state of flow that positive sport performances and experiences can be attained. This makes flow an important concept to understand from both a theoretical and an applied perspective in sport psychology" (Jackson, 1992, p.178).

The Runner's High

The following "effusive description of the runner's high comes . . . from noted psychopharmacologist, Arnold Mandell: 'A loving contentment invades the basement of my mind, and thoughts bubble up without trails' " (Sachs, 1984, p. 273 as cited in Black, 1979, p. 79).

The runner's high phenomenon includes a multiplicity of twenty-seven descriptors. Among them include: "euphoria, strength, speed, power, gracefulness, spirituality, sudden realization of one's potential, glimpsing perfection, moving without effort . . . " (Sachs, 1984, p. 274).

In a study by Wagemaker and Goldstein (1980), electroencephalograph [EEG] readings were taken before and after runs of previously fatigued subjects. After their runs of 25 to 30 minutes, subjects' EEG patterns "indicated the normal waxing and waning between the right and left hemispheres. Subjects said that they could think more clearly, and that their fatigue had disappeared. They felt better, were more rested, and could concentrate more effectively" (Sachs, 1984, p. 274).

"Numerous researchers have indicated functional differences between the cerebral hemispheres (e.g., Bever, 1975; Bogan, 1969; Gazzanigal, 1970; Ornstein, 1972). The left hemisphere is characterized

by activities such as verbal, analytic, abstract, rational, and objective. The right hemisphere's activities are depicted as preverbal, holistic, symbolic, spatial and subjective" (Sachs, 1984, p. 275). Because right-brain dominant people are more likely to experience runner's high, it is proposed that those "with left brain dominance have difficulty shifting to the right brain" (Sachs, 1984, p. 275).

Regarding facilitative processes of the runner's high, "Kleinman (1979) points out that the emphasis must be on process [rather than product] in dealing with qualitative aspects of movement and sport" (Sachs, 1984, p. 276). Glasser (1976) suggests: "The judgmental self, highlighting preconceived ideas of time and distance to be covered, restricts the possibility of a heightened experience" (cited in Sachs, 1984. p. 276). Lilliefors (1978) concurs: "Relaxation is necessary for the runner's high to occur" (cited in Sachs, 1984, p. 276).

Qualitative investigations revealed that runners reported an inability to exert conscious control over the experiences--"that it was not possible to predict when it would occur. For example, one said that 'you can't decide to feel like this,' and another noted that 'you can't bring it on, control it, predict it' " (Sachs, 1984, p. 278). Many of the runners suggested that an absence of intrusive thoughts about work, family, and other concerns--and self-imposed pressures about their performance on the run were necessary preconditions to experiencing the phenomenon of runner's high.

Peak Performance

Yours is the Earth and everything that's in it . . .

Rudyard Kipling, If

Peak performance (often called "the zone") is the sought after and prized experience of the athlete. Once achieved, some athletes go to great measures, often in the form of complex rituals, to beckon its return.

Peak performance, like peak experience, is an optimal level of human functioning and being. The elevated level of performance is of particular interest to coaches, athletes, sport psychologists, and to personnel in corporations who seek supreme quality and quantity of work from their employees. In sport psychology literature, peak performance, or "the ideal performance state" (Williams, 1986) has been described:

> The prototype of superior use of human potential; it is more efficient, creative, productive, or in some way better than habitual behavior. Although it has been operationally defined for research purposes as "behavior that exceeds typical behavior," peak performance also refers to full use of any human power. Peak performance is a high level of functioning rather than a type of activity. . . . Peak performance is useful for understanding human potential and for an examination of qualities common to all experiences that significantly tap human power. (Privette, 1964, 1968)

Common Characteristics and Discriminating Attributes

Contributing to the confusion in the literature about the four above-described experiences is that they share some commonalities. Attributes shared by all three constructs include absorption, valuing, joy, spontaneity, a sense of power, and personal identity and involvement.

The topologies also reveal general distinguishing characteristics. "Peak experience, for example, is a mystic, transpersonal and affective experience; peak performance is transactive, clearly focusing on self as well as the valued object; and flow is fun" (Privette, 1983, p. 1361). Runner's high is an intense altered state wherein euphoria and strength are prevailing factors.

Academicians' Definitions and Descriptions of Peak Performance

What psychological characteristics constitute a peak performance? It is hard to achieve, impossible to hold onto once experienced, and its difficulties persist: It is irksome both for the athlete--and witnesses to describe the performance.

"It has been called many things. Researchers speak of it as 'peak performance' or the 'flow state'; they say it is an altered state of consciousness that cannot be intentionally created" (Douillard, 1994, p. 3).

Despite its resistance to being "intentionally created," efforts to define "it" and rationale for doing so, persist:

Greater understanding of peak moments in sport will facilitate frequency and fullness of the experience, (Cohn, 1991; Jackson, 1992; Jackson & Roberts, 1992; Kimiecik & Stein, 1992) and "as future

research builds on recent conceptual and methodological advances a fuller understanding of peak performance should ensue" (Snyder, Brewer, 1994, p. 103).

The study of peak performance is of interest because of its mysterious and elusive arrivals and departures, but it is important because of its potential relationship to humans achieving their highest capabilities: "Peak performance is a primary goal for competitive sport participants" (Snyder, Brewer, 1994, p. 97). "Almost all professional athletes in their own ways, search for the effortless performance of the Zone" (Douillard, 1994, p. 3).

The experience of peak performance, naturally, is not a recent phenomenon--nor are attempts at its description and definition.

"The Zone is referred to, in various ways, in the ancient teachings of China's Tao and Japan's Zen, but the oldest references come from India . . . where historians believe the original martial arts were taught" (Douillard, 1994, p. xix). The most common descriptors reflect ease of movement, effortlessness, and joy. Not surprisingly, these same factors are presented in academic descriptions and definitions today.

However, the academic definition of peak performance seems to dwarf the experiential aspects of the phenomenon, as reported by athletes. In sport psychology literature, peak performance has been defined as "behavior that exceeds one's predictable level of functioning" (Brewer, Linder, Van Raalte, and Van Raalte, 1991).

This definition suggests that after three (or so) performances, one would be able to establish a "predictable," baseline level of functioning.

If on the fourth performance, one exceeded the expectations set by the previous three performances, one had a "peak performance."

Gayle Privette (1983) has established some discriminating factors which form a typology of the experience of peak performance: Important attributes shared by all three (peak experience, peak performance and flow) "include absorption, valuing, joy, spontaneity, a sense of power, and personal identity and involvement" (p. 1361). The topologies also reveal distinguishing characteristics. Peak experience, for example, "is mystic and transpersonal; peak performance is transactive, clearly focusing on self as well as the valued object; and flow is fun" (Privette, 1983, p. 1361).

The Elusiveness of Peak Performance

> The field of sport psychology, which was developed in part to help athletes reproduce the highly coveted experience of the Zone, has failed in its attempts. Dr. Keith Henschen of the University of Utah, who specializes in the field, recognizes the elusive nature and apparently unreproducible experience of the Zone, but at the same time he believes it can be randomly accessed by anyone. That is, it can come to anyone, but it comes when it comes, not necessarily when you want it to. Perhaps the most certain limiting factor, according to Henschen, is that "the harder you try to get there, the less likely it is that you will." (Douillard, 1994, p. 4)

When asked about peak performance, Britton Brewer, Ph.D., the president of the American Psychological Association's Division 47 [Exercise and Sport Psychology] responded: "Regarding peak performance, I think that it is still a topic of interest and importance in the field. . . . The peak performance issue that interests me most is not what helps a person get into 'the zone' but instead, what enables a competitor to triumph when they clearly are not in 'the zone' [which is likely to be the case most of the time]" (Britton Brewer, personal communication, 1997).

The experience of peak performance is compelling--and generally, the more athletes attempt to grasp it, the more it eludes them. "The great Zen master D.T. Suzuki described this nonthinking state: 'As soon as we reflect, deliberate, and conceptualize, the original unconscious is lost and thought interferes.' If you're thinking, you're not in the Zone. If you're trying, you're not in the zone. If you're bored, you're not in the zone" (Douillard, 1994, p. 211). This leaves the athlete who has been trained to think and try hard in quite a dilemma. As everyone knows who has tried in meditative repose, to "empty their mind," the contents are often unwilling participants.

This generates an interesting paradox. Modern exercise theory revolves around one central pivot, the stress-and-recover cycle, which boils down to this: We must repeatedly push ourselves to our limits and then let the body recover; that is how we become stronger, faster, and so on. The zone is defined antithetically: The harder you try to reach that state, the less likely it is that you will. Conventional training demands

that we put out tremendous effort; the zone is an experience of absolute effortlessness.

Peak Performance: The Athlete's Description

> An old Chinese proverb states that those in search of the path to a treacherous summit should first study all possible routes, then ask someone who has been there.
>
> Loehr, 1991

What follows is a phenomenological investigation of the experiences of athletes who have "been there." It is proposed that we will learn about the territory from their descriptions.

It is recognized that athletes do not generally identify their best athletic moments as "peak performance." Indeed the vocabulary they use to describe the experience reflects an "out of the mind" process, which seems to imply an unusual mode of sense, perception, and cognition.

There are commonalities in the typological descriptions athletes offer for the experience of peak performance. The attributes that athletes accentuate when describing their phenomenological experiences are presented. Categorically, they reflect the following attributes:

Unconscious processes

Present focus

Calmness, euphoria, and invincibility

Perfect concentration, and calmness

Detachment

Effortlessness and slowing of time or motion

Power, balance and supreme happiness

Quietude, aliveness, controlling destiny, (Murphy, White, 1995).

Various Nomenclature Athletes Use to Describe Peak Performance

It was Ted Williams who first coined the expression "in the zone" (Douillard, 1994). The late tennis champion Arthur Ashe also endorsed that terminology and has articulately described his experiences of being in the zone (Murphy, White, 1978), (Ashe, Rampersad, 1993). Other athletes simply refer to the experience as being "unconscious," "out of my mind," "out of my gourd," "in the twilight zone," and "over my head." It appears that conscious awareness and disturbance of thoughts can prevent the "arrival"--and facilitate the "departure" of a peak performance. Athletes must not tamper with their thinking about how to perform their activity. As soon as conscious thought about the mechanics of what they have to do begins, they radically limit their chances of achieving a peak performance (Gallwey, 1978).

Athletes' Descriptions of Superior Unconscious Operations

Catfish Hunter, in describing the perfect game he pitched against the Minnesota Twins in 1968, says, "I wasn't worried about a perfect game going into the ninth. It was like a dream. I was going on like I was in a daze" (Murphy, White, 1995, p. 26).

Present Focus

It seems certain that when athletes are performing at the peak of their abilities, they are totally immersed in the moment and are in a state of undistractibility.

John Brodie, former San Francisco 49er quarterback, has said that "a player's effectiveness is directly related to his ability to be right there . . . in the moment. . . . He can't be worrying about the past or the future or the crowd or some other extraneous event. He must be able to respond in the here and now" (Murphy M. & Brodie J. as cited in Murphy, White, 1995, p. 22).

Calmness, Euphoria and Invincibility

Brazil's Pele was an extra-ordinary and high achieving athlete

> . . . the great soccer player whose spectacular performance almost single-handedly inspired American awareness and appreciation of his sport, wrote of his experience of the Zone in his autobiography, My Life and Beautiful Game. "In the middle of the match, I felt a strange calmness I hadn't experienced before. It was a type of euphoria. I felt I could run all day without tiring, that I could dribble through any or all of their team, that I could almost go through them physically. It was a strange feeling and one that I had not had before. Perhaps it was merely confidence, but I have felt confident many times without that strange feeling of invincibility." (Douillard, 1994, p. 3)

The surfing phenom, Midget Farrelly, said:

Sometimes you reach a point of being so coordinated, so completely balanced, that you feel you can do anything--anything at all. . . . An extra bit of confidence like that can carry you through, and you can do things

that are just about impossible. (Farrelly, M. as cited in Murphy, White, 1995, p. 21)

When reporting about his experience in the 1976 Olympics, Bruce Jenner said:

> A strange feeling came over me. In four events so far, I'd set three personal bests and come within a couple hundredths of my electronic p.r. [personal record] in the hundred. I started to feel that there was nothing I couldn't do if I had to. It was a strange feeling of awesome power, except that I was in awe of myself, knocking off these p.r.'s like that. I was rising above myself, doing things I had no right doing. (Jenner, B. as cited in Murphy, White, 1995, p. 21)

Perfect Concentration and Calmness

Billie Jean King, (who revolutionized women's tennis from a defensive back-court game to an all-out attack on the net), like Pele, spoke of calmness as a correlate of peak performance. Writing of the perfect shot, she says:

> I can almost feel it coming. It usually happens on one of those days when everything is just right, when the crowd is large and enthusiastic and my concentration is so perfect it almost seems as though I'm able to transport myself beyond the turmoil on the court to some place of total peace and calm. (King, B.J. with Chapin, K. as cited in Murphy, White, 1995, p. 11)

Detachment

Some athletes and stage performers have reported feelings of being "removed"--of feeling detached from what they were doing.

Before 1954, running a four-minute mile was considered beyond human capability. When he broke the four-minute mile, Roger Bannister, an English medical student, says that halfway through the race, "I was relaxing so much that my mind seemed almost detached from my body. There was no strain" (Bannister, R., 1955, p. 213). Dancer Jacques d'Amboise also describes a sense of detachment in the supreme moments when he feels in command, that he can do anything with his body. "When you're dancing like that, you seem to be removed. You can enjoy yourself doing it and watch yourself doing it at the same time" (Murphy, White, 1995, p. 14).

Power, Balance and Supreme Happiness

When an athlete describes a peak performance, sometimes the theme of happiness emerges in the account, either as a precursor to the performance, an emotion in the process of the event, or as a result thereof.

The bullfighter, El Cordobes "has described many performances in which he was 'crazy happy.' He was hypnotized by his own success with this animal, unable to think of anything else but that splendid, drunken feeling of power each movement, each pass of the bull gave him" (Collins, L. & Lapierre, D. as cited in Murphy, White, 1995 p. 20).

The surfer, Midget Farrelly said that when he's in the zone, he "can run up to the front of the board and stand on the nose when pushing out through a broken wave; I can goof around, put myself in an impossible

position and then pull out of it simply because I feel happy" (Farrelly, M. as cited in Murphy, White, 1995, p. 21).

Quietness, Aliveness and Controlling Destiny

Sometimes the athlete's peak performance occurs in the midst of pushing oneself to one's absolute physical and mental limits.

After breaking the world downhill speed skiing record, Steve McKinney commented, "I discovered the middle path of stillness within speed, calmness within fear, and I held it longer and quieter than ever before" (McKinney, S. as cited in Murphy, White, 1995, p. 11).

And the notorious race driver, Mario Andretti adds:

> When a man is competing in a race car, when he is pushing himself and the machine to the very limit, when the tires are breaking free from the ground and he is controlling his destiny with his own two hands, then, he is living . . . in a way no other human can understand. (Andretti, M. as cited in Murphy, White, 1995, p. 22)

Effortlessness, Slowing of Time and Motion

When Roger Bannister cracked the four-minute mile barrier, running a mile in 3:59:4, Bannister said, "We seemed to be going so slowly . . . I was relaxing so much that my mind seemed almost detached from my body. There was no strain. There was no pain. Only a great unity of movement and aim. The world seemed to stand still or even not to exist" (Douillard, 1994, p. 4).

Perhaps Mario is right about the feeling of really "living". . . yet is mistaken about it being the sole province of the race driver. It is conceivable that the tennis player (when he has his feet and his racquet doing exactly what he intends them to do) is also "living," as is the surfer when he has mastery over the wave and the board, when the soccer player feels absolutely invincible, and when the runner instructs the body to perform, and it does seemingly without effort.

Mental Toughness

> Abraham Lincoln saw the value of training his mind early in life, and forced himself to gain a complete understanding of Euclid's geometry. He knew that geometry would never be relevant to his life, but he mastered the subject anyway, purely for the mental training it gave him.
>
> Loehr, 1994

In contrast to one's usual images of toughness, "toughness" refers, primarily, to resiliency:

> Do you recall the Aesop's fable of the oak and willow? The proud and rigid oak boasted of his strength to his neighbor, the delicate and sensitive willow. Even the slightest breeze caused her to sway and bend, while the oak stood like a granite cliff. Eventually a greater wind than had ever swept across the country struck the oak's rigid trunk, splintering it. The oak lost many large branches before the great wind died away, leaving only a shattered skeleton of the huge tree. Yet the willow--flexible, responsive, and resilient--came through unharmed, still strong and undamaged despite being buffeted by gusting, swirling forces. (Loehr, 1994, pp. 18-19)

> Countless myths persist about the real meaning of toughness. Many athletes and coaches have got it confused. Tough has nothing to do

with the killer instinct or being mean. It also has nothing to do with being cold, hard, insensitive, callused, or ruthless . . . the great ones . . . are flexible, responsive, strong, and resilient under pressure. (Loehr, 1994, p. 4)

Loehr (1994) suggests that "mental toughness" is characterized by four factors:

1. Emotional Flexibility--to be able to respond to competitive (and other crises) in an adaptive and flexible fashion. To enjoy the pleasures of competing and testing out one's skills and abilities. In contrast, for example, inflexible athletes become obsessed by a referee's call that went in favor of the opponent--and don't recover emotionally from the setback.

2. Emotional Responsiveness--reflects the capacity of the competitor "to remain emotionally engaged, and connected under pressure."

3. Emotional Strength--to be able to persist in one's efforts to win despite the "odds," and what the present score is.

4. Emotional Resiliency--indicates a capacity to recover quickly from disappointments, mistakes, and missed opportunities and jump back into battle fully ready to resume.

The "nature versus nurture" argument is alive and well in the arena of "mental toughness." Loehr (1994) states unequivocally that it is a learned, rather than an inherited, genetic factor:

> TOUGHNESS IS LEARNED. Make no mistake about it: Toughness has nothing to do with genetics or inherited instincts. It is acquired in precisely the same way all skills are. If you don't have it, it simply means you haven't learned it. Anyone can learn to get tougher at any stage in his or her life. TOUGHNESS IS THE SKILL THAT ENABLES YOU TO BRING ALL YOUR TALENT AND SKILL TO LIFE ON DEMAND. (Loehr, 1994, p. 6)

The rewards of mental toughness sometimes come about naturalistically--as a surprise and a discovery. A brief anecdote about a young boy's discovery of the rewards of mental toughness follows:

The author's ten year old godson, Filipe, is a fine competitive swimmer. Months ago, he was attempting to swim the entire length of the pool underwater. He kept emerging, frustrated, his face flushed, his goal not accomplished.

One day, after many efforts, he made it all the way to the other end. Breathing deeply, he yelled to his father: "Pa, even when you think you are completely out of air, you still have a little bit left!" His recent victories suggest that his learning (one of enduring, even without all the essential resources--air) is one that he will never forget (Filipe and Oscar Goncalves, personal communications, 1997). "Toughness is dynamic, not static; fluctuating, not stationary. Its measure is flexibility, responsiveness, strength, and resiliency under stress" (Loehr, 1994, p. 21).

Cognitive Variables and Peak Performance

> There is fun to be done!
> There are points to be scored. There are games to be won.
> And the magical things you can do with that ball
> will make you the winningest winner of all . . .
>
> Dr. Seuss, 1990

Coinciding with the "cognitive revolution" occurring in mainstream psychology in the 1970's and 1980's, sport psychology adopted a

cognitive focus, paying special attention to athletes' thoughts and images (Williams, 1993). One of the notions of this movement was that the temperamental child called "peak performance" could be reached through direction of thought--and could attain an identity that was constant.

The vast majority of literature in sport psychology takes a "mental-skills training-approach to working with athletes. . . . Athletes are taught these . . . ways of cognitively managing their performance in the expectation that these methods will lead to better performance" (Murphy, 1995, p. 7).

Many sport psychologists and competitors believe that:

> How athletes think affects and even determines how they perform. Negative thinking, the "I can't" attitude, seems to be associated with performance failure. The 1983 New York City Marathon provides an excellent example of how inner dialogue can influence the performance of runners. Geoff Smith, an Englishman, led for most of the race. Within approximately 300 meters of the finish line, Rod Dixon, a New Zealander, passed Smith and won the race. The difference between first and second place was 9 seconds, or about 50 yards. William P. Morgan (1984), a well-known sport psychology authority, indicated that Dixon's success may have been aided by his cognitive strategy. According to newspaper reports, Dixon stated, with a mile to go I was thinking, "A miler's kick does the trick, and I've got to go, I've got to go." By contrast, with 600 yards to go, Smith is reported to have said, "My legs have gone." Later Smith noted, "I was just running from memory. I thought I was going to stumble and collapse." In fact, Smith did collapse at the finish line. Today many sport psychologists who work in the area of applied sport psychology have developed techniques to train athletes to think positively by focusing on what they want to happen as opposed to what they do not want to happen. Perhaps the result of the 1983 New York Marathon would have been different if Smith had employed these techniques. (Williams, 1993, p. 3)

It is common knowledge that "cue" words are used by athletes before and during a sporting contest. It is held that the great golfer, Sam Snead [known for an explosive temper], used to say to himself "hot-cool," to reflect his need to play "hot," and to be "cool" under competitive pressure. More remarkable was the perspective of Boris Becker, at 17 years old, to say to himself when he was feeling nervous prior to serving for the Wimbledon title: "Whether I win this or not . . . there won't be a third world war."

Athletes develop their own pre-performance styles of readying themselves psychologically for an upcoming event. In the men's locker room before going out to center court at Wimbledon, Pete Sampras sits alone, playing a game of batting the ball against a wall. In another corner of the locker room, Jim Courrier sits alone, in silence, with his eyes closed "just zoning out." On his way out to the court, Raj says: "Go get 'im, Pete." Pete responds, without a word, but with a thumb up (Raj Maharaj, personal communication, 1997).

Thinking and Self-Talk

"As much as 77% of what you tell yourself may be working against you!" (Helmstetter, 1982, p. 1).

> You will become what you think about most; your success or failure in anything, large or small, will depend on your programming--what you accept from others, and what you say when you talk to yourself. . . . It makes no difference whether we believe it or not. The brain simply believes what you tell it most. And what you tell it about you, it will create. It has no choice. (Helmstetter, 1982, p. 25)

Proponents of the "you shall be as you shall think" are quite emphatic in their estimations of the power of self-talk--both in its capacity to debilitate capability, and in its capacity to fortify and manifest the presence of latent skills.

In the cognitive-behavioral tradition of psychotherapy, it was widely held (Ellis, 1962) that thought preceded emotion--and that the nature of one's thought was reflected in the emotion experienced. In recent years (Loehr, 1994), this notion has been challenged. Today, many researchers believe (Mahoney, 1991, Guidano, 1987, Greenberg, Safran, & Rici, 1989) that thought affects emotion, that emotion affects thought, that thought affects thought, etc. If indeed there is causality, it is less linear and more chaotic and spiral-like than earlier conceived.

What to think and say to oneself to access one's best performance state, is a theme sport psychologists are concerned with--and some of the literature in the field addresses this subject.

James Loehr (1994) contends that emotions rule performances--and that appropriate emotions can be accessed by proper thinking. Before prescribing a program of "proper thinking," he asks: "What changes or adaptations can we make *mentally* that will help us gain more control *emotionally?* We have to do it mentally because we can't directly reach our emotions" (p. 181). Some of the mental "adaptations" he suggests are as follows:

1. Start acknowledging that what you think has a significant impact on how you feel.

> The connection between thought and emotion is real and direct. Thoughts don't merely float in your mind as so many people assume; they are electrochemical events even before they trigger emotions. And thoughts often trigger emotions instantly, by swiftly causing more chemical events to take place within the body (Loehr, 1994, p. 183).

Remembering and associating with successful past events and experiences is one method to generate positive emotions--and to shift present affect into one that yielded successful results in the past. With proper reign of thoughts, some control over feelings will ensue.

2. Take full responsibility for what and how you think.

> Negative thoughts may intrude at any time and are certainly more prevalent during stressful periods. This means that during times of special stress you should be very conscious of the damaging power of negative thoughts (Loehr, 1994, p. 185).

Managing one's thoughts by becoming aware of them, transforming destructive ones--and entertaining only those which contribute to effective conduct, is a way of facilitating problem-solving behavior and contending with the present moment.

3. Start thinking more flexibly.

Rigid and absolutist thoughts can be altered, allowing more flexible options. Initially, it is requisite for the "thinker" to become aware when rigid thinking prevails, and then to evaluate what innovative thoughts and options might be available in the situation. Finally, the preferred flexible

thought(s) can be applied, and rehearsed. Loehr (1994) recommends some thoughts to counter rigid and defeatist thinking.

And, what follows are counters to defeatist, rigid and "non tough" thinking:

- I will put myself on the line every day.
- I will not surrender.
- I will not turn against myself in tough times.
- I will come totally prepared to compete every day.
- When it's tough, I will stay in control with humor.
- I will not show weakness on the outside.
- I love competing more than winning.

Habits of rigid, inflexible thinking can be transformed into more flexible, creative and adaptive modes of self-reflection.

4. Start thinking more responsively.

   Develop a keen mental awareness of negative emotional states such as depression, assumption of defeat, helplessness, and the like. Don't just accept them and muddle through; investigate why you feel that way, devise a solution, and put it into effect.

Psychological pain, like physiological pain (such as hunger), is a messenger of information. If the information is acknowledged and responded to, resolving the pain is a possible result. With a commitment to recognize pain, there is the possibility of successful cognitive, attitudinal, and emotional change.

5. Start thinking more energetically.

- Think *fun* and more positive energy will start flowing immediately.
- Think or say "I love it," "Yes," and "Is this great or what?"

Finding humor and fun--and developing creative ideas and projects in the midst of stressful situations can contribute to the habit of making mental toughening skills in adverse conditions.

6. Start thinking more resiliently.

Instead of letting negative feelings overwhelm you, think:

- I can get through this.
- This too will pass.
- I can handle this.
- I've been through worse things than this.
- Handling this is no sweat for a tough guy like me.
- This is not too much for me.
- I bounce back quickly.
- I'll be back.
- Tough times don't last but tough people do--and I'm tough.

7. Start thinking more humorously.

> It's a habit that can be acquired and used to displace the habit of thinking sourly or of always looking on the bad side of things. In almost every situation, being able to laugh puts you in emotional control. . . . Take humor seriously. Skill with humor is an immensely valuable attribute.

Recollecting comical situations that have made one laugh can generate a wealth of humor for the future. They can be accessed by simple mental review.

8. Be more disciplined in the way you review your mistakes and failures.

There is only one excusable reason for reviewing mistakes and failures: to extract lessons from those experiences so you'll be less likely to repeat them. Reviewing mistakes and failures simply to punish yourself--engaging in pointless rehashes of things past and unchangeable--is one of the worst negative-thinking habits you can fall into.

- If it's possible, figure out why it happened. Ask yourself:
  What could or should I have done differently?
  What can I learn from this?
  What can I take away from this that will help me in the future?
- Treat it like a mission you've flown--debrief yourself and then make the conscious decision to *let it go!*
  It's history. I'm leaving the past behind.
  It's time to move on.
  It's okay. I can handle it. Now I'm moving forward again.

Mistakes and failures are opportunities to plan how to re-orient--and respond to similar future situations more effectively.

9. Be more disciplined in the way you think about crisis and adversity.

. . . attribute some positive meaning to the crisis. Just adopting the determination to find positive meaning will help. Then move on to concede that you have to change how you do some things, live differently, accept some changes in your life-style or working methods. When you're faced with adversity, the longer you remain in denial, refusing the necessity of accepting changes, the longer you will remain in a negative, weakened state.

10. Ask yourself questions when facing adversity or crisis.

How can I use this event to grow and become stronger?

Is there a higher reason for this?
Can something good come of it?
Could this be a test for me?
What can I learn from this?
Can this crisis get me back in touch with my real values?

11. Think and say what you want to feel during the crisis.

You want to feel empowered, able to perform at your highest level.

- Think and talk to yourself like a coach: "You can handle this." "Be strong." "Hang in there." "You can take it."
- Take a big picture view. In the total scheme of things, how bad is it? Tell yourself: "We still have each other." "We still have our health." "There's always next year." "Now we know more."

12. Get back to basics during tough times.

If you need to make adjustments, make them promptly and without looking back. In everybody's life are a lot of nonvital activities and expenditures that can be put aside, if only temporarily.

- Use the crisis to reestablish your *real* priorities in life.
- Bring your *core* values and beliefs to life. Ask yourself: "What is really important here"?
- Take action according to your *core* values. Be decisive and clear thinking in a crisis, building from your core beliefs. Reviewing your core beliefs is a powerful way of helping yourself cope with crisis and adversity.

13. Use positive visualization to change negative emotional states to positive ones. A vivid mental image is invaluable.

- Do your visualization practice with warm and happy or deeply pleasurable images taken from your private life.
- Give meaning to your emotional pain and give yourself temporary permission not to experience it. To help you do that, answer these questions:
- What am I feeling right now?

- If I'm feeling negative, why? What is the unfulfilled need?
- Keep in mind that psychological pain always serves a purpose. With practice, you'll start getting much better at understanding the meaning and significance of your negative emotional state.

(Loehr, 1994, pp. 183-194)

The one thing over which you have absolute control is your own thoughts. It is *this* that puts you in a position to control your own destiny. . . .

What triggers your emotional reaction to an event is the way you perceive the event, or what you say to yourself about yourself in relation to it, rather than the event itself. A simple change in your perception about the meaning of a particular event, or in your belief about your capacity to cope with it positively, can change your current emotional reality. (Orlick, 1990, p. 33)

Cognitive Control. "The key to cognitive control is self-talk" (Bunker, Williams, & Zinsser, 1993, p. 226). They recommend self-talk for numerous applications:

Self-Talk for Skill Acquisition

Self-talk for Changing Bad Habits

Self-Talk for Attention Control

Self-Talk for Creating Affect or Mood

Self-Talk for Changing Affect or Mood

Self-Talk for Controlling Effort

Self-Talk for Building Self-Efficacy

Techniques for Controlling Negative Self-Talk.

Thought Stoppage

Changing Negative Thoughts to Positive Thoughts

Countering

Reframing

Identifying

Irrational and Distorted Thinking.

Perfection is essential

Catastrophizing

Worth depends on achievement

Personalization

Fallacy of fairness and ideal conditions

Blaming

Polarized thinking

One-trial generalizations

Constructing Affirmative Statements. "Designing coping and mastery self-talk tapes" (Williams, 1993, pp. 226-241) can be an efficacious way to develop and affirm capability.

To be regularly successful in athletic competition, athletes need a complex matrix of skills. Thinking "the right thoughts" and having a repertoire of cognitive strategies can provide a framework for peak performance and can improve the chances of having a peak performance, but won't deliver the experience. Thoughts and self-talk build a state of readiness within which peak performance *may* happen along.

Self-Complexity

There is evidence that a "complex" self--rather than an undivided (by interests and involvement) self has some very positive indicators:

> Linville (1987) shows that complexity of the self has a buffering effect against stressful situations. The operational definition of self-complexity results from two criteria--the number of self-aspects identified by the person and the degree of differentiation of these aspects. The explanation proposed by Linville (1987) is that each self-representation, when activated, produces an emotional response. When people experience negative events, the more relevant self-aspects are activated. If the complexity of the person is low, this activation tends to affect the whole self, producing depressive responses and, through neuro-endocrine, immune and behavioral processes, a reduction of levels of physical health. Therefore, the more localized the stressful situation, the greater the probability of the occurrence of a psychologically adaptive process. (Goncalves, M.M. & Norris, E.K., 1996, pp. 15, 16)

The implications with regard to self-complexity, especially for the athlete (but also for the non-athlete) are formidable. It is common for athletes to orient themselves toward their sport interests and goals, to the exclusion of any others. Often, when asked about their areas of interest, athletes report that their interests are related solely to their sport. Consequently, a day of poor performance on the court or field for a person of low complexity, may lead to greater stress, and self-derogation than for the athlete who has other and diverse interests and goals. The athlete with other interests can self-reference in a positive way with respect to other interests and roles in life (e.g., as a musician, a wood carver, a conversationalist, an academician, a painter, a boy or girl

friend). A lack of self-complexity can put undue pressure on an athlete: Athletes often have tremendous pressure from coaches and families to win; without complexity, they [coaches and family] may be the most demanding [the "greatest enemy" syndrome] person in their support entourage. The author has heard athletes say: "This is all I do; this is all I'm any good at." Or, "If I can't do any better than this . . ."

In learning more about the identity-formation of athletes, cognitive-developmental psychology might learn more about the "complexity of the self" (Guidano, 1994) through the integration of "selves" that can and do occur in an athlete's identity-development and concepts of self.

In her video presentation ("3 to Get Ready") about mental readiness for athletes, Joan Duda describes lack of self-complexity as constructing one's life on the seat of a one-legged stool. She furthers Linville's idea of self-complexity by recommending that athletes build their lives around a matrix of activities that can support and bolster the self. If one facet of an athlete's life is not at an optimal level, perhaps another is. This concept has wide application to athletes and non-athletes alike.

In his work with triathletes, Jorge Silverio (1995) concluded that, as a consequence of their tri-sport involvement, [and greater self-complexity] triathletes are better protected from burn-out. "Our hypotesis [sic] was that the triathlets [sic] suffered least burnout due to the fact of having more complexity and more multipotenciality [sic]" (Silverio, 1995,

Summary). As compared with one-sport athletes studied, the triathletes generally had less helplessness, less expectation of inefficiency, less exhaustion, less disinterest and excitability, while maintaining higher levels of energy.

Boris Becker, at 17 years of age, became the youngest male Wimbledon champion in history. Ion Tiriac, Becker's mentor and former manager, assessed the impact of his achievement this way:

> Winning Wimbledon at age seventeen formed and deformed Boris. . . . Boris said: "I don't think you can compare me to Lendl, or Connors or Edberg, or read that much into that they don't seem to struggle while I do. Well, I just put more emotions into it, or at least different kinds of emotions. And that's my biggest strength and my biggest weakness. . . . The others don't get as down as I do, and maybe not as up. They make it more of a job, while for me tennis was always my identity, my definition, even when I don't want it to be" (Bodo, 1995, p. 336).

Some years later, after numerous life events and transitions, Becker said: "I am just now feeling and believing that I can be a tennis player without being just a tennis player. I'm trying to make it more of a nine-to-five job, but a job that I really care about. . . . I can only create that balance by being the way I am now because of the way I am inside" (Bodo, 1995, p. 336). Becker had changed. Always a seeker, "Becker suddenly emerged as a more complex human being, destined to represent something other than a one-dimensional, powerfully efficient tennis player who by eighteen had already won back-to-back Wimbledon titles" (Bodo, 1995, p. 340). Boris had integrated more self-aspects, had broadened his self-definition, and increased his level of self-complexity.

If the literature (Linville, 1987) is successfully predictive, Becker no longer has the tremendous "highs" after a great win--and no longer suffers the same level of disparagement after a hard fought loss.

One of the great difficulties for many athletes is anticipating retirement and finding meaning and value in post-retirement life. In contrast to prevailing beliefs (Gordon, 1995) about the necessity for the retiring athlete to "divorce" from their area of expertise [sport], this author proposes that such dismemberment is not only unnecessary; it can lead to a splintering of the self, rather than an integration. Rather than divorcing from one's sport, it may be possible to "fold" the athletic identity into other identities. It is not necessary to adopt the "has been" mentality so often a part of American folklore. Rather, a retiring athlete can recall his greatest athletic moments, know that he is still capable of great athletic episodes, and be in the process of becoming something [banker, lawyer, landscaper] in addition to what he already is, and in addition to what he has already accomplished. He is becoming more than he was, and integrating more aspects than ever before. His self-complexity, even while one of his pillars of success is not as elevated as it once was, is higher than ever before.

For the non-athlete, there exists the possibility for greater complexity, as well. A non-athlete can experience embodied activity and reap its rewards, but more importantly, have another realm of self-reference and identity.

CHAPTER 3
METHODOLOGY

Introduction

> Thomas Carlyle once said of Alfred Lord Tennyson: "Alfred is always carrying a bit of chaos around with him, and turning it into a bit of cosmos."
>
> Plimpton, 1995

Taking "chaos" and creating order is the job of the researcher. Presently, and throughout the brief history of sport psychology, there has been a plethora of quantitative methods used to explore the issues pertinent to psychological research in the realm of sport. "Science is one method for acquiring knowledge. Orthodox science is a paradigm of knowledge derived from the 15th and 16th-century scientific revolution in astronomy, physics, and mathematics. It has been enormously successful in the physical and biological sciences, and even in the study of part processes in humans. It has failed miserably, however, when studying the behavior of people, especially the more complex functions of people, because it has clung to the doctrine of objectivity. This doctrine has prevented behavioral scientists from developing alternative ways of knowing that are more suitable for the study of human behavior" (Martens, 1987, p. 37).

Phenomenological Research

Asking questions of experienced and successful people is a path toward knowledge. Listening intently to responses, seeking explanations,

and probing respectfully with more questions deepens that knowledge. Irving Seidman, widely viewed as a pioneering leader in phenomenological research, says:

> I interview because I am interested in people's stories. Most simply put, stories are a way of knowing. The root of the word story is the Greek word histor, which means one who is "wise" and "learned" (Watkins, 1985, p. 74). Telling stories is essentially a meaning-making process. When people tell stories, they select details of their experience from their stream of consciousness. Every whole story, Aristotle tells us, has a beginning, a middle, and an end (Butcher, 1902). In order to give the details of their experience a beginning, middle, and end, people must reflect on their experience. It is this process of selecting constitutive details of experience, reflecting on them, giving them order, and thereby making sense of them that makes telling stories a meaning-making experience. (Seidman, 1991, p. 1)

True to story-like form, Seidman describes his appreciation of what came to be known as "phenomenological interviewing" by recalling an experience he had in an advanced educational psychology class: "I raised my hand and said something about humans being different from rats because people had language. I don't remember exactly what the professor said in return, but it was not what I would call today a collaborative response" (Seidman, 1991, p. xii).

> [A] means for sport psychologists to acquire knowledge through introspective methods is by helping those who have a great deal of experiential knowledge direct their own awareness and focus it on a given problem. Thus, while a coach or athlete may know more than he or she can tell, "using Polanyi's aphorism," those who study sport psychology for a living can help them tell it. It seems obvious to me an enormous loss of knowledge that coaches and athletes with many years of experience are permitted to retire and never record, in some systematic way, their experiences. While the

> more famous may write their autobiographies, how much more could we learn if someone spent a month interviewing John Wooden, for example, to discover what he has learned about the psychology of sport? With your ability as a sport psychologist to ask probing questions, with your tacit knowledge to search for patterns, how much more would you learn by such an interview than by conducting another 2 x 2 factorial study in your laboratory? Most of us would delight in pursuing such knowledge because the yield would be so great. Yet at present we deny ourselves this approach because it does not fulfill the doctrine of objectivity, and thus is deemed unscientific. (Martens, 1987, pp. 50-51)

Research methodology has been a paramount enigma throughout the history of psychology. The search for universal "truths" has been necessarily de-centered by personal variations on themes and idiosyncratic styles of meaning-making. While quantitative research was once considered the hallmark of objectivity, critics suggest that numbers are meaningful for certain types of research, while personal and narrative accounts are more suggestive of "reality" for other types of investigations.

> I have grave doubts that isolated psychological studies that manipulate a few variables, attempting to uncover the effects of X on Y, can be cumulative to form a coherent picture of human behavior. I know of no line of research in the behavioral sciences that has accomplished this yet. The external validity of laboratory studies is at best limited to predicting behavior in other laboratory studies. (Martens, 1987, p. 43)

The author utilized phenomenological in-depth interviews as the research methodology in the present study. This open-ended style of research best addresses the inquiries and questions of the researcher. Champions hold a wealth of ideas about what facilitated their

championship level of achievement. The treasures of that "wealth" can be at least partially unearthed by conversation. "Researchers in the field of sport psychology have been encouraged to consider alternative paradigms that view the subjective experience of the athlete as a viable resource of information (Dewar, & Horn, 1992; Fahlberg, Fahlberg, & Gates, 1992; Hanson & Newburg, 1992; Martens, 1979, 1987). Unfortunately, experience has often been seen as secondary, given little consideration in the literature and, as Jackson (1992) indicates, generally neglected. In recent years, however, some researchers have begun to consider alternative paradigms in their study of behavior in sport psychology research, resulting in a steady increase in the number of qualitative investigations involving the experience of athletes (e.g., Cohn, 1991; Dale, 1994; Eklund, 1991; Eklund, Gould, & Jackson, 1993; Gould, Eklund, & Jackson, 1992; Hanson, 1992; Hemery, 1986; Jackson, 1992; McCaffrey & Orlick, 1989; McDonald & Orlick, 1994; Newman, 1992; Orlick & Partington, 1988; Parker, 1994; Scanlon, Stein, & Ravizza, 1989; Striegel, 1994; Weiss, Barber, Sisley, & Ebbeck, 1991)" (Dale, 1996, pp. 307, 308).

"The phenomenological interview is meant to be a discourse or conversation" (Mischler, 1986).

> Unlike questionnaires that require the researcher to systematize and present "canned" questions to all participants in order to evoke stimulus-response interactions, phenomenological interviews tend to be more open-ended. The goal of a phenomenological interview is to obtain a first-person description of some descriptive and qualitative approaches because it focuses on the participant's experienced meaning rather than on descriptions of his or her overt

> actions or behavior. . . . Finally, much like the typical one-on-one sport psychology consultant-athlete interaction, the phenomenological interview allows the person being interviewed (the athlete or performer) to be the expert as opposed to the researcher in more standardized modes of inquiry. In actuality, the person being interviewed is not referred to as a subject; rather he or she is referred to as a participant and is co-researcher in the study. (Dale, 1996, p. 310)

What leads to greatness and elation for one athlete may lead to mediocrity and dysphoria for another. The development of a homogeneous formula is not the ambition of this project. Rather, to use another contemporary cliché, the idea that "many roads lead to Rome" is the researcher's bias. His goal is to discover what common "threads" exist regarding various itineraries and to cull any common denominators that may orient those who aspire to high achievement. Many young and hopeful athletes wonder: "How did he get there? How could I get there?" This study points to some possible routes for such "hopefuls" to travel. An aspiring champion could tailor an approach to greatness which mimicked another's--or which copied various aspects of former champions' paths to success.

> Cleveland (1985) tells of someone asking Isaac Stern, one of the world's great violinists, why all professional musicians seem able to play the same notes in the same order, yet some sound wonderful and others do not. Stern thought for a moment and then replied, "But it isn't the notes that are important. It's the intervals between the notes." This is not only true about music but also about our research and its transformation into useful knowledge. (Martens, 1987, p. 54)

"We know more than we can tell" (Polyani [1966], cited in Martens, 1987, p. 50). However, in descriptive analyses about human

behavior, numbers often say less than words and stories reveal. In studies of human behavior, I know of no X that can be said to cause any Y without the purposeful or accidental contribution of any other factors.

Research Design

Selection of the Participants

The researcher invited twenty-three former tennis champions to participate in a conversational study in which the researcher attempted to learn about their paths to becoming tennis champions--and their experience once there. Sixteen champions participated; seven declined to be interviewed.

The criteria for selection of participants was limited to two factors:

1. Male tennis players who were ranked among the top ten in the United States.

2. Male tennis players who were ranked among the top twenty in the world.

While phenomenological interviewing often is conducted via a three phase model (Seidman, 1991), it was requisite that the interviews be limited to one meeting. Champions generally have extremely busy lives, with numerous international commitments; insisting on three interviews would have been a near-certain way for the interviews not to occur.

Procedures and Interviews

In the preliminary stages of this project, the researcher proposed to contact participants through an introductory letter in which he identified himself, his professional orientations, and the purpose of the study (see Appendix B). The researcher contacted administrators of the United States Tennis Association and requested their support of the project. The Administrator of Sport Sciences, Paul Roetert, Ph.D., invited the researcher to attend The United States Open, for which he generously provided a ticket and introduced him to two past champions--both of whom participated in the project. Subsequently, the researcher went to the courts where senior champions were playing senior events, and asked two of them if they would be willing to participate in the project. Thus the research began, without the necessity of introductory letters of invitation. Often, champions recommended other champions whose thoughts about championship development they respected. Sometimes, they called those people; other times, they gave the researcher the telephone numbers and said to let them know that they had personally provided the numbers. On other occasions, the researcher received addresses from the champions, and sent them personal letters, along with formal invitations to participate. One week following reception of the letter, the researcher followed up on the invitation with a phone call.

In all, twenty-one letters of invitation were mailed; rejections were received from five champions. Two champions, who were invited during the course of a telephone conversation, declined participation.

Interviews

The interviews were conducted in a minimum of two hours. Each interview commenced by the interviewer reiterating the purpose and procedures of the study. Questions about the researcher and his project were encouraged and responded to.

The questions directed by the interviewer were generally open-ended, allowing for elaborate responses which called for the idiosyncratic thoughts and meaning of the participants.

The following are formal questions generated by the interviewer. They were reformatted into laymen's terms where necessary. The questions served as a guide to stimulate the thinking of champions and to precipitate retrospective introspection about how they became champions. The interview took the shape that is consistent with phenomenological research . . . open-ended, wherein "prompts" were utilized if and when there was a lull or a lack of material generated. So as not to disorient the participant to a questionnaire type of study, the following questions were asked only when their content was not emergent in the course of the phenomenological in-depth interviews.

1. • How do you define "champion"?

2. • What are the characteristics, traits and factors that you possess that made you a champion?

3. • What are the social factors (family, coach, peers, etc.) that contributed to your success?

4 • Was there a deciding factor . . . a defining moment or an incident that occurred--after which you knew you would dedicate a lot of your time and focus to becoming a champion?

5. • Were you highly motivated? Were you primarily self-motivated or motivated by other people? What contributed to the motivation you had? What detracted from it?

6. • What is mental toughness? Is it "in the genes," can one learn it, or both? If one can learn it, how can it be learned?

7. • Do you--or did you have mental toughness? If yes, what contributed to the development of your mental toughness?

8. • If you do--or did have mental toughness, are there ways in which mental toughness that you learned or used in your sport has had application and usefulness in your personal life--off the court?

9. • What is the "killer instinct"? Do--or did you have it? Is it necessary to have "it" in order to become a champion?

10. • Did you ever consider yourself a "choker"? Do you think you were ever considered a "choker" by others (players, coaches,

spectators)? Did you dissuade yourself and/or others about this appraisal of you? If so, how did you do that? Was there a defining moment when that occurred?

11. • Was there another sport that contributed to your development in tennis, either physical or psychological?

12. • When you were competing, did you have and pursue many different interests--or few? How has that contributed to--or detracted from your success?

13. • How has emotion (too much, too little, just right) contributed to or detracted from your success? If it's important to regulate one's emotions on the court, how should one do this?

14. • Was your approach to your sport more outcome (result) or process (experience) oriented? Did your orientation lend itself well to your successes? Would you have fared better being either more contained--or more expressive on the court?

15. • Have you ever experienced a peak performance in your sport?

16. • Did you ever experience the automatic functioning described as "being in the zone"? What was your explanation for the "zone"-- and how you got into that mode of functioning? What were the aftereffects of such a performance? Elation? Contentment? Depression? What meaning did you make about that

experience? e.g., why it occurred, how to facilitate its re-occurrence, etc.? Did the experience alter your notions about your own athletic limitations, or lack thereof?

17. • Does reflecting on a personal moment of peak performance (e.g., a particular win--or a day when everything was effortless and accurate, etc.) help you when you're clearly not in the "zone"?

18. • How did you manage to triumph even when you weren't in the zone or experiencing a peak performance?

19. • Were there aspects of being or becoming a great performer that helped you with personal hardships (e.g., personal life changes, death of a loved one, retirement, new career development, etc.)?

20. Were there lessons that you learned from competing that have been applicable to other demands of life--or life-skill development?

21. • Were you ever sent away in your formative years to develop your skills at a camp or an academy? If so, was this experience useful for you in your championship development? If so, were there any negatives you associate with this experience . . . anything you regret?

22. • If you had an opportunity to do it all over again--would you? If so, what would you change about the way you did it the first time, if anything?

23. • Did you ever feel as though you were training for your championship goals in order to avoid other hardships of life? For example, some runners have reported that they literally were running away from the pain they felt in childhood, etc. (Ungerleider, 1995, p. xvi).

24. • What is the best thing about becoming and being a champion? What is the worst thing about becoming and being a champion? Are there post-championship pressures? What are they? Are they surmountable? How? What about pressures from yourself . . . the champion?

25. • What would it take to become a champion today versus when you became a champion? Are there similarities? Differences?

26. • Why do you suppose so many American juniors are not performing up to par at the international level in competitive tennis--and are dropping out of tournament participation? What, if anything, should be done about this?

27. • Has sport psychology contributed to your championship development? If so, how so?

All interviews were tape recorded. The author personally transcribed the interviews for two reasons. One was to ensure confidentiality. The other was that it provided the researcher with an opportunity to begin an analysis of the work within the context of the original material.

Each participant signed a "release" which indicated their approval regarding the ground rules of the process: that they had the right to terminate the interview at any time they desired, and that they could remain anonymous. Participants did not seek anonymity. However, in keeping with the guidelines of the Human Subjects Review Committee, participants' identitfying names were altered.

Many of the participants indicated that they enjoyed the process of the interviews, believed that the research would yield valuable information, and requested findings about the study subsequent to its completion.

A research journal, as recommended by Bogdan & Taylor (1975) was kept. This was inclusive of the researcher's observations of the participants' non-verbal behavior, the tone of the interview, cognitive reactions during the course of the interview, problems encountered during the process, and any insights gained during the interview process.

Analysis of the Data

The analysis of the data utilized a grounded theory mode (Glaser and Strauss, 1967). Patterns and themes were identified during the interviews and interview transcriptions. The entire transcription was coded according to emergent themes. A detailed study of these transcripts resulted in identification of the commonalities that existed. Glaser & Strauss (1967) support this method, stating: "In discovering theory, one generates conceptual categories from evidence; then the evidence from which the category emerged is used to illustrate the concept" (p. 23). Bogdan and Biklen (1982) support the view that a working theory may be uncovered during the course of the study, although it is to be strictly limited to the data generated. Patton (1988) adds: "The cardinal principle of qualitative analysis is that causal relationships and theoretical statements be clearly emergent from and grounded in the phenomena studied. The theory emerges from the data; it is not imposed on the data" (p. 278).

> Between the lines of Kuhn's analysis we push through the gap in the traditional view of science and down a narrow tunnel. We now stick our heads out into a fog-shrouded landscape--shimmering, infinitely subtle, and new. In this landscape we see scientists as they move from paradigm to paradigm like rabbits in a magic show, seeming to discover in their movement that the very laws of nature are protean, changing with each new paradigm. As the scientists shift paradigms, even the data change. . . . And as it unfolds, a paradigm seems to generate (not just uncover) anomalies which destroy it, leading to others. Thus here, through the steaming mist, we seem to glimpse the strange possibility that the changeableness of nature's laws may be relative somehow to the activity of

> scientists' looking. Observer and observed appear to influence one another, the scientist like a whirlpool trying to study the flow of water. Here we have left behind, with Bacon and Descartes and Popper, a universe where the observer observes the observed and have entered a looking glass, a universe where, in some way (we can only see this part very dimly now) the observer is the observed. (Briggs and Peat, 1984, cited in Martens, 1987, p. 37)

Limitations of the Study

> If only we could find a way to get rid of the people in people experiments!
>
> Martens, 1987

It is recognized by the researcher that no study can shed all limitations. It is concluded that in order to study and evaluate something, one cannot examine everything.

Why limit a study to tennis champions versus champions from diverse sports? Tennis, proposes the author, demands specific psychological, physical and technical skills. A neophyte to both sport and psychology could detect some of those differences by viewing professional football on one afternoon followed by professional tennis the next. Tennis is a fine motor control sport whose attentional demands are great. Limiting the differences makes it possible to identify the similarities in methods and processes used by champions in this individual sport. It is conceivable that aspiring tennis champions may use information gleaned from this study. They deserve clear information that is specific to the sport in which they hope to excel. In most previous studies of sport champions, the characteristics of champions have been

estimated, evaluated, and summarized regardless of which sport they championed in. The author proposes metaphorically that in studies about apples, "apples have been compared to oranges." And so, while studying characteristics about a single sport, a single gender, and with a moderate number of subjects, it is proposed that salient findings about a discrete subject and a discrete population may be uncovered and have merit. The paths to reach the status of tennis champion are already diverse. To include different athletes in different sports would broaden that diversity. To include males and females would "un-limit" the study and, ironically, make it of limited use for either population intended.

Studies that do not include both genders are admittedly and by definition--limited studies. However, for the purposes of this study, it is also a methodological necessity. Reports from numerous coaches, trainers and athletes suggest that men and women respond differently to various phases of training processes. To include both genders would be interesting, yet confounding and limiting to the possibility of generating discrete information.

In keeping with the method of in-depth phenomenological research methodology, the number of participants is modest. Glaser and Strauss (1967) state that the number of cases is not crucial in the generation of substantive theory. . . . "A single case can indicate a general conceptual character or property; a few more cases can confirm the indication" (p. 30).

No attempt is made by the researcher to represent various ethnic, religious, or cultural groups.

Participants were not selected based on the degree of their self-knowledge and self-awareness, nor on their ability to articulate their internal experiences in general. This design is intentional. These participants have demonstrated unusual prowess; it is proposed that they have certain wisdom and insight to contribute to the understanding of champion development.

Researcher Bias

The author has been a U.S.P.T.A. professional for many years, and has coached a collegiate team. He has conducted sport psychology consultations in the United States and in Portugal, using current theories and approaches with some of Portugal's finest tennis players, and with the number 1 junior team in the nation. He played collegiate tennis and was undefeated for two consecutive seasons. He has been sectionally and divisionally ranked in tennis. He is not, nor has he ever been a tennis champion. He has climbed a range, but did not ascend the highest peaks. This perspective gives him: (a). the potential for relational access to the athletes in this study (some common knowledge about the sport of tennis and athletic achievement in general). (b). A history of sustained enthusiasm and passion about the subject. He knows the map, but some of the territory is foreign to him. (c). One might argue that the author's previous and current experiences could color his work. A tabula rasa the author is not. No human is "blank"--and interest alone colors a topic.

Involvement colors it differently. The author has presented the participants' perspectives to the best of his ability as seen through their eyes, as spoken with their voices, and as analyzed using appropriate research methodologies.

CHAPTER 4

ANALYSIS OF THE DATA

It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have actually done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs and comes up short again and again; because there is not effort without error or shortcoming; but who does actually strive to do the deeds; who knows the great enthusiasms, the great devotions; who spends himself in a worthy cause, who, at the best in the end, knows in the end the triumphs of high achievement and who at worst, if he fails, at least fails while daring greatly; so that his place shall never be with those whose cold and timid souls know neither victory nor defeat.

Theodore Roosevelt

The intent of this study was to investigate and understand how tennis champions develop. What emerged from the research were some seven hundred pages of transcription, one hundred and eleven categorized themes, and a host of questions which could be addressed in future research. The purpose of this chapter is to present the salient findings of the study.

Many of the most renowned tennis champions of the past five decades (listed in the Acknowledgments) were interviewed. In keeping with the guidelines of the Human Subjects Review Committee, the identities of the champions have been altered.

The quotes from the champions were selected using two independent criteria:

1. Responses which reflected the majority of the athletes' views (where appropriate), and:

2. Quotes which suggested the diversity of findings in the study.

The first and most robust of the findings is that champions hold a wealth of knowledge about their own development--and an abundance of ideas about what pre-conditions might exist for a player who aspires to become a champion. The researcher imagined that paths to champion success would be diverse and indeed they were. The itineraries of champions' development can be charted--and are presented in this study. There is no existing framework within which to explain their successes. Rather, there is the complexity of words, paragraphs, explanations, and idiosyncratic exception to everything that begins to hint at a rule. In this study there are sixteen cases, and within them exist many shared experiences and beliefs about ideal development, etc. According to Glaser and Strauss (1967), "A single case can indicate a general conceptual character or property; a few more cases can confirm the indication" (p. 30).

In the next paragraphs, summaries are drawn.

Champions Define Champion

Is there a consensus of opinion among tennis champions regarding what defines a champion?

The New Shorter Oxford English Dictionary defines "champion" as:

> 1 A fighting man; a stout fighter. 2 A person who fights, argues, etc., on behalf of another for a cause. 3 An athlete, boxer, etc., who has defeated all competitors; an overall winner of a series of competitions. . . . (p. 370)

How might the dictionary definition correlate--or not correlate with how champions define "champion"?

The researcher expected that the question would yield responses which fit a stereotypical model of titles and trophies won, world ranking achieved, etc. Generally, the responses were varied, complex, and sometimes intricately woven.

The first question asked of all the participants in this study was: "What is--and how do you define a tennis champion?" The response patterns fit three distinctly different categorical types:

1. External Orientation: Titles won.
2. External-Internal Orientation: Titles won and demonstration of respectful self-conduct and valued personal qualities.
3. Internal Orientation: Demonstration of valued personal qualities and optimizing potential.

Generally, the "external" responses referred to titles won. Conversely, the "external-internal" category reflected titles won as a pre-requisite for defining a champion, but *not* in the vacuum of respectful

conduct on and off the tennis court. The "internal" variety reflected some athletes' ideations that "champion" can refer to the achievement of some athletes to simply *reach their potential*, whether they win titles or not--whether they become number one in the world, or number three hundred on the Association of Tennis Professionals computer.

A summary of participant responses follows.

External Orientation

Number One. Several of the champions believed that it is important for an aspiring junior to be--and to think of themselves as number one.

> I think it's unbelievably important to be number one--and I don't care how small the pond is. I think it's the same thing as in prize fighting, when they bring along, even Pallucas, very carefully and slowly. They would probably have this guy fight girls in the beginning so that he could win sixteen times. Then they would make sure that every time that he fought somebody, until he had fought thirty or forty times, that he would win. And that was not an accident. And the boxing profession, which is not exactly a science--it's called the "sweet science"--that's sort of sarcastic, but that's what it's called to this day. But it's no accident; they're very smart. They want you to get used to winning. (Michael 1997)

Simon, once the number four player in the world, a highly talented player and a fluid spokesperson of the game, affirmed that this theme had been important in his development when he said: "I was the best that I could see always--[growing up], so I never lost confidence in my ability because I was always the best around that I could see."

Ken, winner of numerous titles, and the former number five player in the world, says:

> I'm not a hundred percent sure that I would define myself as a champion because my idea, when I was a young kid--was to be number one in the world and I never reached that goal; I made five in the world, I sort of felt that I was somewhat of a failure--not exactly as time goes on; I feel a little better about my career but right as it was going on, toward the end I realized that I wasn't going to become number one and I thought of myself as a failure, so I always looked at a champion who is the best player in the world at some point, so maybe my criteria is a little tougher than some people's.

Simon concurs with Ken on his definition of a champion:

> To me a champion is Rod Laver and the guys who were number one--the real champions--I considered myself to be a very good player, but I didn't see myself as somebody who had special champion quality like the guys of my era who were Laver, Emerson, Newcombe, Ashe, Smith, who won Wimbledon--they were like number one in the world--and to me that was being a real champion, and so, in my world *they* [italics added] were champions, to others I may have been champion . . . and the highest I reached was number four in the world one year but that still, in my mind, does not qualify as a champion--but I suppose that depends on your definition.

Winning. Serge, who was known for his passionate competitiveness, desire and brilliant tactical analysis, says: "Champions, to me, are the guys who win from '68 to now."

The expression "I like to win as much as the next guy" is not applicable to this group of athletes. They like to win *more* than the "next guy." They are an extremely competitive group of people who are passionately driven to be victorious, regardless of the cost to muscle,

tendon and bone. Peter, a top ranking player, Davis Cup team member and then Davis Cup team captain, said: "I think one common thread [among champions] is that they like to compete; winning was fun; losing wasn't."

The interviewer asked Edwin, a doubles specialist and also an accomplished singles player, a question about enjoying the process of a match. He answered: "I think that playing beautiful points and losing them, doesn't really appeal to me. I know it wouldn't appeal to Newcombe. I don't think Newcombe was ever concerned with playing a beautiful point, but losing it."

Who wins?

> A winner is not one who has the best balance, coordination and skill, and who uses these talents in competitive sports; that person may be a player. A winner is one who among all the others with equal skills, is able to go beyond his inhibitions to reach out at some instant and touch perfection, and bring that experience into his life, and manifest it in his sport. (Jim Taylor, 1993, p. 4)

External-Internal Orientation

Good Winner, Good Loser.

> If you can meet with Triumph and Disaster
> And treat those two impostors just the same . . .
>
> Rudyard Kipling, If

There are champions who believe that the criteria of what defines champions includes how they have conducted themselves on and off the tennis court. Andrew, a Wimbledon champion, former number one player in the world, and multiple title holder in singles and doubles (with partner John), discusses this theme by quoting the above epigraph by Rudyard Kipling, which is inscribed above the door as one enters center court at Wimbledon. He continues by saying:

> Well, everybody has their own definition of a champion. I differentiate it from being a great player--to being a great player as one with a certain attitude. That concept--this is my personal definition of champions--is one--that they can do that; they can accept defeat or loss and handle them both well, and be able to look their opponent in the eye when they shake hands, and say "good match."

Edwin echoes the same concept:

> A champion in my mind is a person in tennis, a person who puts it on the line on a regular basis against peers, and comes through in one way or the other, every time. If he comes through, physically, while winning the match, he's a good winner. And if he comes through, and occasionally if he loses a match, he comes through as a good loser, and yet we still know that he's a champion. . . . A good loser is somebody who plays his heart out, doesn't give away anything and then on that particular day, is bitten by a bit of fire and acknowledges that--no excuses.

To me, though, when you ask the definition of a champion, it's a guy, a player that can fight their guts out and at the end, walk off, and say "hey, the other guy played better than I did," and not make any excuses . . . and I had to learn that. My mental process as a kid was--well, if I hadn't hit the ball there, they wouldn't have been able to make that great shot. I had to learn to give credit to my opponents and how well they played, and I think that's maybe maturity. (Peter 1997)

Internal Orientation

Potential Seeking. Nearly all of the participants indicated that one of the defining characteristics of champions is that they have dedicated their early years to discovering their "potential," uncovering it, and "chasing" it, making it manifest in the world of professional tennis.

Andrew, a proponent of this theme, said:

> But the ones that love the game, the money is really secondary--and if they're champions it can be secondary because it's all relative--it's not the motivating factor. And they got to be number one not because of chasing money but because of chasing their potential.

Matt, holder of numerous doubles and singles titles and a Davis Cup team captain, furthers and embellishes this theme in his definition of what a champion is:

> Some people would say that a champion is someone who has won a grand slam and been number one in the world. I tend to define a champion as someone who has gotten the most out of his ability--you know--forget about the number of the rank. Maybe they get as high as twenty in the world. Maybe they only get to fifty. But, if someone is extremely professional in the way they prepare, extremely professional in the way they try to keep improving every year, not only in their tennis, but the physical and mental aspects of the game and guys who really explore every avenue to keep improving and get to the peak of their potential.
>
> . . . and you've got to say, someone who reaches their potential is a real champion--you know, because they may not have the God-given talents and gifts that a Pete Sampras has, but you can

only--everybody has to play with the hand they're dealt and you can only do so much if you're a little limited technically, physically or whatever. For someone to reach as high as they can reach and really, when they look at themselves in the mirror after their tennis career is over, you know, and say, "I did everything I could," instead of saying, "I wish I would have done this", or "I wish I had gotten in better shape," or "I wish I had mentally"--but the guys that can look in the mirror and say, "I did everything I could" . . . Those are the real champions, in my mind.

John, winner of numerous singles titles and doubles titles (with partner Andrew), furthers the correlation of champion being someone who is chasing his potential when he says:

> A champion defining a champion . . . I think it's someone who has taken . . . a sport on and just loved it for what it was and then just continued to work hard at it and excelled at it and tried to become the best that he could be.

And Paul, described by one of the participants, as one of the most talented players in the Open era of tennis and twice the winner of a grand slam tournament, suggests:

> I think there are different levels of champions in people's minds, and I think the most important aspect of a champion is what he thinks of himself. Now, if it's somebody that won Wimbledon, it might be fine for a Pete Sampras or a John McEnroe, or Bjorn Borg, or Connors, but there might be a guy who was never an athlete, but yet worked extremely hard and made it to the tour rank of three hundred in the world, and in his mind, he's a champion. So, I think it's all in how a person thinks about himself . . . you have to perceive what you've done in your tennis career, and then make up your own mind about how you feel about it . . . I think you really have to go within and say--you know--I came from a farming community . . . and the chances of me becoming a top 10 tennis player in the world--what are the chances of that? And so, in that sense, I feel a tremendous sense of accomplishment. And obviously, winning titles is the second cherry on the cake.

Steven, winner of numerous singles titles, was one of the most determined players in memory. He thrived in the absence of expectation from the tennis community--and in that void, demanded excellence from himself. He lent to the notion of summoning the maximum of one's potential when he said:

> I would say a champion is . . . somebody who reaches beyond their capabilities, who puts it on the line every time he plays, who is very committed to what he is doing . . . who has some positive ways that he lives his life and sticks to them; I think it goes beyond the court; I think it goes off the court in the way you conduct yourself. I think those are . . . the definitions of champion.
>
> I think that somebody doesn't have to win a grand slam [to] be a champion, maybe not in other people's eyes, but in a player's eyes, or from a coach's point of view, I think if you reach your potential, in a lot of ways, you're a champion.

Claudio, a Spaniard who grew up ball-boying for wealthy tennis club members in Spain, went against all odds, and became a champion who won numerous singles titles, and is the on-going consultant for some developing Spanish and American players. He adds to the "potential chasing" epistemology when he says:

> To me, there are different parts that make up a champion, in my eyes. To me, number one is desire--what is the desire before I look at any physical ability, once I see somebody--normally I look for desire, what price is this individual willing to pay to get the best from himself?

Other and Varied Responses

Some of the participants had differing opinions about the definition of "champion," and those are described below and are categorized as follows:

A Winner on Every Surface. Earl, a winner of numerous grand slam tournaments and a living legend, has a different perspective on what constitutes a champion:

> When I think of a tennis champion, I think it's a person who should be able to beat everyone on every surface they play on. For example Adrian Quist, the Australian was a good friend of mine, and Quist was playing a match and he was losing. And I just happened to be talking to Elly [Vines] when he was going to go on court--so Elly said to Adrian, "Adrian, it's too bad you lost today." He said, "Well if I had played him on grass, I would have beaten him." I thought--here's a world class player, admitting that he wasn't as good on cement. But if he played on another surface, he thought he would have beaten him. I thought, "Boy, if I was ever a world class player, I would never find myself guilty of saying, well, I think I could have beaten him on something else." I would not want to admit that I couldn't play as well on everything. So that motivated me; so I never would admit that I couldn't play as well on everything, even though I couldn't at the time. I eventually had the feeling . . . I could have played as well on everything--and I tried to approach it that way.

Titles, Trophies, and Personal Conduct. Peter, winner of many titles, a long-standing member--and then Captain of a Davis Cup Team, reports:

> Well, a tennis champion is a person who has been successful in the game as far as winning titles, being a good representative of the game, making a contribution to others so that they can continue the game--and it encompasses those elements, rather than just winning

> titles. I think there are champion tennis players who have reached the quarterfinals in events and they're not recognized as champions by the media, but they make a significant contribution to the game, and they deport themselves well . . . so my definition doesn't necessarily mean that's it. I know a lot of players who have won a lot of titles, and that doesn't necessarily make them a champion of the stature of someone who hasn't won as many, but has made a significant contribution to the game.

Andrew reaffirms the importance of giving back to the sport which has provided tennis champions with many opportunities and a way of making a living.

> This is [part of] my personal definition of champions . . . he is one who gives back to the game. So it's kind of a broad definition of champion in my opinion--everybody, like I said, has their own opinion of it. That's the way I look at it. I look at great players out there; I classify some as champions and some as just players.

Patriotism. Charles, winner of the United States Open, was once ranked on top of the tennis world and for him, "arrival" and the status of champion included playing for his country in the Davis Cup competitions and playing at Wimbledon.

> Well, it was always a great thrill for me to play Davis Cup--I think every kid sort of starts off and dreams about playing for his country--or playing at Wimbledon--and in my case, I achieved both of them, but it took a long, long while, and it was something that I didn't really expect to do.

Perspective of Humbleness. Kevin, once one of the hardest working professionals on the tennis tour, and the winner of numerous titles, described his uncertainty and defined champions this way:

> Well that's--I don't know how you define it. A lot of times you hear that word, and some of it has to do with results and some of it has to do with the type of person--you hear about it from different angles--but you know, as it relates to me and tennis, I'm just somebody who picked up a racquet, enjoyed it, had some success at it--and people call you what they call you.

Genetic Epistemology. Brett, whose career spanned many years and claimed multiple grand slam titles, speaking of what he thinks defines a champion, emphasizes the genetic, "God-given" gifts or raw talent, which are heaped upon the few and is a spectacle for the many:

> Along with the three things I talked about [discussed in a later section], I think you have to have the inborn talent to be able to do the other three. You have to have all those ingredients to make it fly, I think. Because you can see players that you think--"they've got better shots than I've got; they've got everything--they're more accurate; they have more consistency." But they get into a match and they can't play--and they just fold up. They beat your brains out in practice, but they can't fire in a match.

He went on to say that inborn talent is:

> Timing--being able to time the ball. . . . It's like hitting a golf ball--you can swing like a madman and the ball goes two hundred yards. But if you time it and with the correct swing, it goes three hundred. And so, when I say God-given talent, your body is in tune with the stroke and you didn't have to learn it, or master it--just make a backswing that would connect with the strike of the ball and the follow through. It was all just a natural swing and your body absorbs it--you know what distance away from the ball to be--you run to it, you don't run past it.

Simon agrees with Brett and says:

Firstly, I felt that I had a great deal of natural talent. A lot of my good Australian friends would argue with that statement--but when I was in school, for example, and I'm talking about junior school now . . . it was about when I was eight or nine years old, I took on my whole class in cricket . . . we had these big wickets . . . I'd have a bat and they couldn't get me out because I saw the ball too well--I saw a tennis ball or a cricket ball and I'd hit it all over the place . . . so it was a match between me and 18 other kids that I was competitive with . . . so that was the first thing--that I was very naturally talented and from the time I picked up a tennis racquet, I was always as good or better than anybody else around . . . at school, for example, I tended to be the best player and then in what we call the province, the Eastern province, which is similar to your state . . . eventually I was first in the country.

Championship Development

Family Influences

The relationships with parents and siblings were highly influential in the making of these champions. The champions in the study were generally raised by very supportive and encouraging parents. Sometimes that reflected a general support and encouragement from the parents; in other cases, support was present with high expectations. The majority of them indicated that they started playing the sport of tennis out of the sheer love of the game, and that their parents supported that desire, often taking their child to tennis tournaments, and providing coaching. Nearly without exception, there was a presence of competitiveness within the household, which had an impact. Most of the champions indicated that their parents communicated to them that they would not progress without

hard work, and that their work ethic was, in large part, a reflection of not one--but both of their parents.

Parents. Michael was a top ten player in his nation on three successive occasions and a Davis Cup team member. Regarding Michael's relationships with his parents and his brothers, he said:

> My parents were sort of my best friends. I have two brothers and I had a great support system, abstractly. In other words, they were pretty encouraging, unbelievably nice people and smart, but they had no idea about how to help my development. . . . But the interest of my parents was just solid background.

About his family development, Andrew said:

> I don't see my upbringing being tremendously different from anybody else, except that I had some--just a pretty solid background. It wasn't anything unusual. . . . [My parents] were supportive in general, very supportive of everything I did. But they certainly weren't supportive of tennis, per se; they weren't really involved in my career 'til I was about eighteen, as far as watching me play a lot; it was more just general support. And my mother pushed me pretty hard to play piano and to work a little harder--when I played baseball, football, and basketball--they were supportive of that. I don't think I got a lot of negative vibes from them.

And Brett said:

> Well, I think my family probably were my main encouragers. My dad was always instrumental in finding tournaments. And my mother was [too]. . . . There were little mini-tournaments that my mom and dad would drive me to.

Kenny talks about his father being instrumental in his decision to pursue tennis.

> Well, I mean I was always--partly my father--I would say--made the history; it was planted in my brain. I'm not one hundred per cent sure how that works . . . my dad says . . . when I was six or seven years old, anytime I would be on the tennis court practicing, people would stop and come watch--and obviously that's like an ego boost for a little kid.

Some of the athletes had the experience of an influential relationship with an older person (or couple), which mimicked a parental relationship:

> People started helping me when I was fifteen; this couple started helping me a lot. They were almost my parents for a couple of years and their expectations were very high. They had me going to a good school, like USC, tennis-wise. U.S.C. and U.C.L.A. were the two best tennis schools at the time. (Andrew 1997)

However, many of the athletes had their own version of stories they had heard about supportive parents--and about those who were over-involved in the tennis development of their child:

> You hear extremes of parents on both sides, ones like the Sampras' who seem to be very uninvolved, and then you see others who are unbelievably involved, to the point of child abuse, literally. And they've done well, both sides you can say have been successful. In *tennis* [italics added]. You just wonder what it's like in other areas of life . . . overall. (Andrew 1997)

Many tennis champions are offspring of parents who, like the father of Bjorn Borg (not a participant in this study), had a history of athletic success:

My father was one of the country's leading table-tennis players and in the summer of 1965 captured the city's championships, winning a tennis racquet as first prize. He gave it to me. My first tennis racquet at nine. (Borg, Scott, 1980, p. 13)

Earl said:

My father was a good athlete. He played soccer for the Glasgow Rangers, a Scottish team. They were one of the top teams in the world . . . they were all world class players.

And Brett added:

My mother played a lot of tennis. My dad didn't play. He was a cattle rancher, and had played a lot of tennis. . . . But my mother played a lot and we played mixed doubles together. She, and Al [my coach] and my brothers; it was a family tradition.

John said: "Yes, my dad played football [at a high level], and he played a little bit of tennis in high school and college."

Sometimes, in describing another champion's development, the relationship between significant family members and the athlete was described more as *demand* than "support":

> Lendl's mother used to take him to the courts on a leash and tie him to the net post. He got interested in the game of tennis because of her being very dominant. My parents weren't dominant personalities in that sense at all. . . . Look . . . Connors' mother and grandmother pushed him as much as anybody possibly could [be pushed]. (Andrew 1997)

Ken's description of his father's relationship with his tennis development started in a positive, loving way, a past time for a father

with his son. After early success on the tennis court, Kenny described his father's involvement as "overboard."

Bjorn Borg, a great champion, says about his development:

> The role of my parents was perfect. They were helpful, but never put their nose in my tennis. I was obviously crazy about tennis from the beginning, and they gave assistance all the time but never told me what to do, when to practice, when to play tournaments. If they had gotten too involved, I would quickly have been sick of training, everything.
>
> It's fine for parents to give guidance when you're younger, but once I was eighteen I myself knew what I had to do to be good. It's like taking piano lessons when you're very young. If they had told me I had to practice four hours a day and pushed it down my throat, I would have quit tennis. (Borg, Scott, 1980, p. 14)

Siblings and Identity. Regarding siblings, it is apparent that competitiveness was a general theme among the children. Some of them directed that drive in tennis, and others in various and diverse sports. Brett's brothers, for example, were superior anglers; they entered fishing tournaments on weekends, and generally won. Earl's brother was a fine tennis player, number two in Northern California. Before Earl's first tournament, his brother said to him that he could win in his age division, were he not so lazy. Earl responded to his brothers' admonishments by training hard to win that tournament, the first tournament he ever entered.

Two of the athletes interviewed indicated that their search for championship achievement was, at least in part, a striving to set themselves apart and to have an identity as separate from their brothers. Andrew said:

> It just doesn't happen all of a sudden that a player has the motivation and the will to win, which really separates the players--that will to win generates the work ethic, even the enjoyment of the game. The early upbringing . . . from my example, one of the motivations I had was [that] my two brothers were older, five and seven years. When I went to junior high school the coaches there always referred to me as my brother Jim, or Robert's brother. I don't know how much of a factor it was, but it certainly was something. I wanted to have my own identification.
>
> My one daughter is out west and they refer to her as Andrew Jones' daughter and I told her last night, "well, that could be the motivating factor for you to get better, so that at some point in time I'll become Laurie Jones' father."

The researcher asked, "Was that especially important in your development? It certainly sounds like you thought it might have been?"

Andrew responded:

> I don't know how big it was. It certainly was an issue--it kind of bothered me a little bit. They thought of me, and it was a natural reaction . . . I played football, basketball and baseball. They knew my brothers, and so they referred to me as their brother.

And Brett said: "Al, the coach, used to come over; he'd coach my brothers. And he said, 'Well, get that little guy; see where he can hit the ball.' So, that's about where it all started."

Earl, talking about his brother, said: "My brother was number one man on the University of California team, so he could play; he was ranked number two in Northern California, behind Bud Chandler, who was the best player [at the time]."

The interviewer asked Earl: "How did it all begin for you? When did a racquet first get put in your hand?" Earl said:

> Well, one night at dinner time my older brother, who was six years older--George was his name. He said, "Earl, the California State Boys' Tournament is coming up, fifteen and under. You'd have a good chance of winning it if you practiced. But you're too damn lazy to practice." So, I had two weeks to practice . . . I'd get up to the court at sun-up--I'd play with anyone who had a racquet from sun-up to sun-down. I'd drag myself home--I just played with everyone who came up, good, bad and indifferent--just to play tennis, and to familiarize myself with hitting balls. So, I entered the tournament and I played the first round match and I won it. Everyone said, "Congratulations." I said, "But that's only the first round". They said, "Yes, but you beat the number one seed." I didn't know that this guy, Phil Carlin, was the number one seed. Anyway, I would have probably been scared if I had known. But anyway, I managed to win it and then I went ahead and won the tournament, the first tournament I ever played in. So I thought, "Well, maybe, I'm not so bad after all."

And Brett said:

> My two brothers were great fishermen. They used to be anglers. Back there they'd have competitions on the weekend. . . . And that was part of competition for them, which they won most of the time. . . . They just knew where to fish . . . they just knew the current, or where the fish would settle when they were resting.

Social Influences

> Well, I did always like being around . . . you're eight or nine and ten--you're around Arthur Ashe--and that's pretty cool.
>
> (Kevin 1997).

One of the questions asked of champions was about the role social relationships and interactions had in their development as champions.

Kevin related his story of how he began playing tennis, which was through a chance meeting with a tournament participant:

> My dad was with one of the service clubs, and they came to him to house players from the Orange Bowl--so, just by chance, he said, "Yes, I'll take a couple." They stayed with us, and that's how I started. They left me a racquet and I used to go out and watch them.

Interviewer: "One of the players actually just left his racquet behind for you?"

> Yes, and I have since seen him and a couple of those guys when I had turned pro and gone to Japan. I saw a couple of them there and one of them was the captain of the Davis Cup team for a little bit of time--so that was quite nice--it was sort of a nice feeling. But that's how it started. . . . He would take me out to the sidewalk [to play]. To me, looking back, I think that was probably the best thing. (Kevin 1997)

Kevin talked about the importance for him of being in the presence of great players and receiving a gift that reflected a dream that was developing for him:

I was able to come in contact with a lot of people through Nick [Bolletieri] that never, never would have happened any other way. For example . . . back in the old amateur days--Arthur Ashe, Stan Smith, Bob Lutz, Clark Graebner, Martie Riessen, all the top players in the world were at this event; I got to see them, be around them, be a part of that event; I was a ball kid; I was twelve; I think that was the year . . . I won the national twelves . . . so, I was starting to play at a pretty good level for my age--and then being able to be around an event like that and see how the pros do it, and how the top amateurs do it . . . I was able to see how those things work.

I used to go out and watch them; I used to hang around with those guys and they were eighteen, nineteen and twenty. And I'm ten. But just the connection through tennis . . . being around even top college players [was something] I always enjoyed. And when I got--they used to have these fleece jackets--I got one of them once--and it was better than anything I could imagine.

Asked about the role of interpersonal relations, Edwin recollected two social relationships that were very influential in his development:

> There are probably lots of important relationships . . . obviously your first coach--my father in my case . . . and Harry Hopman, a tremendous influence . . . and there was a gentleman by the name of Colin Long who played Davis Cup for Australia at the time of Kramer and Schroeder, a very good player who was the managing director of Spalding . . . and he took an interest in me and had me on his own private court on a regular basis where I was playing with great old champions who were past their prime . . . I was able to play with great old players and he also set it up so I was able to practice with people like Frank Sedgeman, and Cooper, and then he introduced me to my first public experience where I met Brian Feldman who is now the chief executive officer of the ITF (International Tennis Federation).

The interviewer then asked: "How important was your relationship with Harry Hopman and some of the other people you've talked about . . . or even the playing with some of the elite players?"

Edwin responded:

> Well, the most important relationship was probably with Colin Long . . . not only that I didn't come from a wealthy family . . . I couldn't ever afford it [and] Spalding played me as a kid. Then, obviously, the relationship with Hopman was a good relationship. . . . He knew more about my abilities and lack of abilities and so he treated me pretty much as a son; he knew my strong points, but he also knew my weaknesses better than anybody else . . . [at home] as well as on the tennis court, so it was a pretty important relationship.

Socioeconomic Influences

> A boy from the other side of the tracks wouldn't want it any other way. As a junior, coming across the river to play the wealthier kids from St. Louis, Connors' tennis style was wed to upward mobility with an urge to counterpunch and fling back the pace of those more privileged. That quality is what accounts for so much of the grit in his matches and conversations. Talk with Jimmy Connors, and you witness a man who seeks to make contact as solidly as he hits a the ball. When Connors speaks, his dark, hazel eyes narrow, peering deeply with the same intensity with which he faced down opponents. "If you'd taken lessons from my mother," he says, squinting as if he's about to return a bullet serve, "you'd have learned the game." (Drucker, 1997, pp. 14, 15)

Almost uniformly, the athletes in the study were from modest means, and pondered why champions seem to be from unassuming to poor socioeconomic backgrounds: In response to the interviewer's question: "What's your impression about where champions come from in terms of socioeconomic and . . . ?"

Peter said:

I bet that would be an interesting study, if you took the past champions' lists of grand slams in singles and doubles--and did an economic study of their backgrounds. I guarantee you that you'd find, well I know Laver came from Rockingham, Australia, from a very modest Australian family, Fred Stolle, I know . . . a family of not tremendous wealth . . . my mom was a school teacher, my dad worked for the telephone company . . . Chuck McKinley's dad just worked and his mom worked; I'm trying to think of the other American players . . . Stan Smith's parents both worked; they came from Pasadena, but they weren't blessed with a tremendous amount of wealth, Jimmy Connors, Belleview, Illinois . . . scrappers; McEnroe's I guess had money . . . Sampras, family of modest means; there are not too many players who are coming out that have the country club memberships because I think that's a factor for sure.

Andrew offered that champions come from all walks of life, but that most are from modest to slightly poor economic groups.

There may be a common denominator in there somewhere. You see kids from wealthy families, you see kids from dirt cheap families; they're dirt poor--and you don't see too many from dirt poor people--you can't really make it. But, the economic situation doesn't necessarily dictate it. McEnroe's parents were very well off, and he was fiery and competitive. Connors' parents were pretty poor and he was competitive. And Chang's parents were bright people, middle economic family; he's got the tennis drive. Chrissie Evert's parents were middle income, but she had tremendous drive. Navratilova, of course she had tremendous drive to get out of her country. Some of the Eastern European guys were like that . . . there's a group of second generation immigrants--it might give them more incentive to do well. Agassi--actually relatively poor parents. So, I think there is a drive to do better than the situation you're in. I think if you were going to take a group, you'd have more kids coming from that [modest to poor background].

John said:

I know of a few examples of kids that had money that just didn't succeed. Maybe they didn't have the ability either, but some--it looked like they did, but they just fell by the wayside. And the fathers wanted them to go into business, or something.

And, dryly, Charles added:

Most Australian tennis players didn't come from much--and they've made it. And I think that's possibly because we were a little hungry, and stood up under a bit of pressure because we *were* [italics added] hungry. And I think you can say that for Pat Rafter, one of nine kids; he had to eat pretty quick. And it shows in his tenacity and guts out there on the court.

Paul offered the following:

> I remember the first time I got a leather pair of Adidas tennis shoes; they were so expensive, it was like buying a house for me . . . I saw these shoes--and I always wanted a pair or those leather shoes. And I think I wore them for two years. That's how we--tennis was that isolated, that far away from us. It's nothing like it is here--nothing . . . I was working to make money to come here . . . my parents were not wealthy at all; we were struggling farmers.

About his own family of origin, Serge said: "Poor, very poor--ball boy--came from nine children; I come from a very poor family."

After Serge described his impoverished upbringing, the interviewer asked him: "Serge, so many of the champions that I've talked with say 'we were farmers; we come from poor families,' and it makes me wonder if you think there is a connection between being poor and being supremely driven and successful in tennis?" Serge responded:

Well, of course--poor. There is no question about it. But that's in every sense in every field of endeavor. How many people born rich accomplish so much? Very few. The Rockefellers--everybody was poor from the beginning, the creation of the world. The poor . . . the Rockefellers, all the rich, when they came to this country, they were nothing.

About American culture, Simon said:

I do believe that our society and this country makes it so easy for kids to learn and to eat and to swim and to roller blade, and to do whatever else there is that is the fad at the time. That's one of the problems that we have--as [opposed] to those kids who are born in other countries who don't have the wide variety of easy things to do; I really think that's a problem . . . I think it's a problem for little kids because tennis is not an easy thing to do; you have to be talented to do it; you have to be dedicated; you have to be fit, and as we all know, it's got to be your life; it's got to be, otherwise you don't make it; it's too competitive otherwise. It's very difficult to convince an American kid, with everything that there is going that this is going to be his life.

Qualities of a Champion

> They are spectacles in themselves, the U.S. Open Tennis Championships, a football game, or a golf tournament--but that doesn't mean that the champions that win those events are admirable people or happy people . . . the quarterback may not be an admirable guy--but that's irrelevant--I think what you are trying to get at is the make-up of a champion, and that's very tough.
>
> (Simon 1997)

When Simon was asked by the interviewer: "If you were to design a composite of the ideal champion, what characteristics would be included in that composite?" Simon responded:

I think about that sometimes, too. That's a very difficult question for me to answer because you have got . . . a Jimmy Connors, and a John McEnroe, who are *so* special and *so* different, *so* out of the ordinary . . . somehow then balanced by Rod Laver, Ken Rosewall, who were just . . . great and wonderful competitors, with enormous talent, tremendous ability and yet completely different--completely different--warm, gentle, low key, thoughtful, caring people--and so this whole issue of champions really confuses me.

Genetic Natural Talent

About inherited athleticism, Earl said: "Well, one thing that I think I [had] was very important. I think I had some natural ability. I think anyone who wants to become a good player has to have the natural ability . . . or want [desperately] to learn."

The interviewer asked Simon:

You said that you believe that champions are born and then you talked moments later about the importance about nurturing a champion. Can you identify what traits or characteristics you were born with . . . and how those were nurtured?

Simon responded:

I felt that I was born with a lot of natural talent for batting the ball, and that was nurtured by my mother saying, "Well you can go out and hit the tennis ball any time of the day or night and you don't have to do homework." And then I was the best I could see always, so I never lost confidence in my own ability because I was always the best around that I could see. So, I think that's what I mean--again, I wasn't nurtured by anybody because we had no coaching--I mean it's just something that didn't exist.

And, succinctly, Charles added: " . . . obviously, I had some natural ability . . ."

Love to Play the Game

> "That's the great thing about this game, I've said it before, I've said it my entire career," he says. "Beat me today, and I'll play you tomorrow. And I've followed guys to the end of the earth just to play them again." . . . Connors, to use one of the sport's popular phrases, "lived in the game" so deeply that he raised consciousness of the game simply by dint of his unabashed joy for striking balls and vanquishing opponents.
>
> Ironically, many critics thought Connors' all-out style would doom him to the ash heap quickly. What they overlooked was his staggering will and, most of all, his sheer love of playing.
>
> (Drucker, 1997, p. 12)

One of the most obvious qualities and characteristics of tennis champions is that, first and foremost, they love the game of tennis. Claudio expressed this sentiment in no uncertain terms:

> I love tennis. I always liked to play and I love the game. . . . And I think that's something that maybe we forget a little bit; more than champions and more than players and money and everything, it's a great game. And I think that everybody should be able to enjoy it.

Paul was also unequivocal when he stated:

> I liked to play tennis from a very young age and it just sort of became my thing. That's all I wanted to do once I got to be 15, 16 years old. I went to school, but the reason I went to that school was because, first of all, I was a great tennis player, and second, I had fairly good grades in school. But my first love was outdoors--was freedom. And tennis to me was a sort of freedom . . . so I got a great education, but I really wanted to be a tennis player.

Andrew added:

> Generally, I really believe that you've got to love the game [to play on the professional tour] . . . you have to be playing because you want to. . . . But most of the players who are on the tour, who are top players in the world, I would say that generally they love the game. The really great players, almost invariably, you have to really love it to be able to put up with everything and make the sacrifices to really make it happen.

And in Brett's words: "I just enjoyed it. . . . I did it a lot and I couldn't wait to go play somewhere. So I guess that's love of the sport."

Summing Serge's comments, the interviewer asked: "So, you fell in love with the game right away?" "*Right away*, [italics added] oh sure--with *intensity* [italics added]. That's what made it good, because it never dissipated. My goal was to become a tennis player. That was my dream."

Simon added:

> I played for the love of it; there was no pot of gold at the end of the [rainbow]. I did it because I enjoyed it, and because for me it was a social expression . . . and that's why I did it--not for any reason to become a professional, to make money, and one thing led to another. . . . I loved to practice and my mother used to say that I could get out of doing homework provided that I was playing against the wall--which my dad had built for me in the back yard, so I *loved it* [italics added] and I would stay up there and practice . . . but I really enjoyed it--for me, just the ball and the striking of it.

Finally, Boris Becker (not a participant in this study), who has recently retired from grand slam competitions, said:

> For a moment, I wished I had my racquets with me, and I imagined that I could run into the locker room, grab Sampras, and go out and hit a few with him, just for the fun of it. At some level, I guess

> I'll always want to do that, because one of the great things I learned by sticking with the game and playing until the age of 29 was that I really, truly love this game of tennis. (Becker, cited in Tennis Magazine, March, 1998, p. 52)

Fun. The innocence and simplicity of fun is included in the matrix of ingredients which combine and lead a champion in his development:

Earl remembered his coach imparting a love of the game through humor and chiding:

> But Tom Stow, who was a damn good teacher, we used to laugh ourselves sick when he was telling me how to do [something]. He would mimic the wrong way I was hitting the ball, at a certain point what I was doing--and I said, "It can't be that bad, Tom." And he said, "Not that bad, but I thought I'd make it a point so that you'd see what I'm getting at." So after we'd stop--he would say, "Why don't we stop laughing and now go to work." He was a cute guy to work with--he made it fun.

Talking about his focus, Ken said:

> My focus is--I'll probably be the only guy who says this--when I've played well, my focus was, "I hope the crowd's having a good time." . . . I liked--I was somewhat of a performer, so I didn't like playing in matches that were boring for the crowd--even if I was winning . . . I didn't feel much pressure in those days because I was trying to have fun--I was hoping the crowd was having fun and I was always thinking, "I've got plenty of time here to move up in the rankings--so why worry? Just have a good time." And that was when I played my best.

Competitiveness

> At a very simple level, I loved to compete. I still do. That probably had a lot to do with the key element I mentioned before: My will. I guess I was lucky to have that, because the idea that I could compete with anybody and on a good day beat anybody made

> the experience of playing very special and satisfying for me. (Becker, March 3, 1998, Tennis Magazine, p. 53)

About competitiveness, Wayne said: "I thought I liked to win, Jimmy's [Connors] something else all together" (Wayne Gretzsky, cited in Drucker, p. 60, 1990).

And Coach Rick Macci said about Venus Williams: "All kids are competitive, but her competitiveness is a couple of levels deeper. . . . She'll run over broken glass to hit a ball" (Macci, cited in People Magazine, October 27, 1997, p.109).

The level of competitiveness of the champions in the study was remarkably high. Many of the athletes described themselves as "very competitive" for as long as they could remember. Peter says:

> I played my first tournament when I was five, and I liked to win; I'm very competitive and so winning was fun; losing wasn't . . . I get kidded by my wife and my kids. You know, people say that I'm very competitive and I know I am, and I can't help it, I guess. When I play my grandson chess, who's six . . . all of a sudden I'm *in* [italics added] the game, and I'm playing to win, and here's my six year old grandson, who's not played very much chess and I don't play it very much, but . . . you know, why is that? Why can't I . . . and then I have to check and say "whoa, you don't care if you beat your grandson in chess"; I mean, that's ridiculous. But, anything I do, I want to do well, and I want to win at, and I don't know where that comes from.

The interviewer asked: "Does that go back in your own life as long as you can remember, or can you . . . ?" Peter responded: "As long as I can remember . . . I don't know if that's good."

Paul said: ". . . and so, from a young age I was competitive. I've always been competitive. My mom even says I was always competitive as a little kid--a pain in the . . . but that's how it started."

Steven furthers this same theme:

> People consider me an extremely competitive person and I never considered myself competitive--and then I start looking and actually I'm unbelievably competitive, but I think I was so competitive that I could push myself . . . I was able to push myself harder than most kids could.

Charles offered his thoughts about competitiveness while reflecting on the recent Davis Cup tie between the United States and Australia:

> And I was really thrilled that it [the competition between the two nations] came back a couple of weeks ago. And that atmosphere was right there; it was the best against the best--and it was fair, but it was fierce. And that's the way the game should be played.

Michael's competitive inclinations were apparent when he said this about his recent past:

> I had two hip operations and I stopped playing in the senior tournaments and I went back and sort of played again after I had recovered. "Should I go down and try to beat up on these same guys I was beating up before I had the operation?" I was able to have the conversation in the closet, saying, "Well, why would you do that? You have a couple of kids; if you had a week or four extra hours, why would you want to spend it with them? You've done that before." And I would win the dialogue. But the fact that I even had to have the conversation is somewhat appalling to me. And I know what the answer is, but that doesn't stop me from saying--"God, I really want to go down there and kick ass."

Independent Thinking, Stubbornness

One of the themes in the study that surfaced repeatedly was one of independent thinking and stubbornness:

The researcher asked John: "When you think about your championship development, what are some of the traits, characteristics, and qualities that you possess . . . that helped you to develop into a champion?" John responded: "I would think determination, stubbornness . . . I just wanted to succeed, and--I was lucky to pick the right coach at the time."

The researcher proceeded: "You mention 'stubbornness'; is there an example of stubbornness that comes to mind, where that comes into play?" John responded:

> German heritage, I guess. Stubborn Dutchman--I don't know . . . in matches, not wanting to give up. And thinking that you always have a chance. Sometimes you're right; sometimes you're wrong, but just the determination to . . . if you're working out and you're working on a shot, especially in the under years, just to keep trying to work at it until you have it . . . I was stubborn and I always thought that my coach taught me the right way and I wasn't going to veer from it. I was very stubborn in not changing anything that he did.

Earl, said by many aficionados to have had the best backhand in the history of the game of tennis, was told by numerous "authorities" to change his grip and his approach to the shot:

> Well, the older, better players in the San Francisco area advised me, right from the beginning that I should change my backhand . . . "Earl, you're going to be a good player someday, but, Christ, you

have to change that backhand." But I would never change my backhand. I would try, you know, a better player would say how to hit it, and I couldn't buy a ball to go back into the court. I'd go back to my way and I could get it to go where I wanted it to go. So, I said, "I guess my way is right for me." . . . I might have tried different backhands for over a week, but I couldn't get it in the court. But, if you have a natural shot, why change it? So, after a while, I thought, "I guess my way is right for me and I can't do it the way Fred Perry would do it--or some guy that had a different idea." So, I finally stuck with what I wanted to do. There was only one man in the world who didn't think I had the best backhand. Do you know who that was? It was Ken Rosewall's father. He thought that Ken had the best backhand. He might have been right. . . . But anyway, you have to learn by what you see and what you think is right. See, I thought I was right to keep my backhand when everyone said I shouldn't do it. "You've got to change it." . . . So, the things that I did, I finally decided that I was going to continue to do and not listen to someone else.

Further demonstrating his independent thinking, Earl, described what has been called the best match in history, and talked about his change of tactics nearing the end of the match, which he won: "So I did something different. I didn't need a captain's [suggestion]--'Hey, why don't you try going into the net on the second serve?' I was able to figure that out myself."

The researcher said: "It sounds like a lot of your development was kind of weeding through advice that made sense to you." Earl responded:

> And logic. You have to be logical. If you're not getting the best of someone from the baseline, then you've got to say, "Why? What can I do to change it?" So, I figured out, "I have to attack his serve," and it worked.

Like many of the athletes in the study, Earl also showed balance in his own perspective, an ability to evaluate advice and accept it if he thought it was wise:

> You have to learn by what you see and what you think is right. . . . If you listen to what you think is good advice, you should profit by it. So those things helped me and I'm glad to say I was open-minded enough to realize how important it was.

Claudio spoke of independent thinking, self-reliance, and stubbornness as instrumental in his development:

> At Davis Cup--my coach was Lew Hoad, the great Australian guy and I used to know him really well and . . . I spent some time with him. At the age of nineteen, I almost decided that I was going to change my grip and I was going to make a big change from continental to semi-western. I went and asked Lew--I could feel that something wasn't going right with my forehand. I started playing better players . . . when I played somebody who put on more pressure, my forehand would break down, so I made up my mind that I was going to go back home and I was going to change it. So, I talked to Lew, and I said, "Lew, this is what I'm thinking. What do you think?" And he said, "Well, I think you're crazy because more than likely you're not going to be able to hit the ball in the court from now on." Once again I said, "I don't think I'm going to go anywhere with this" [as it is], so I went ahead and did it. From that day on, I got a new grip and started playing like that. And I was very close to quitting when I was twenty-one. At one point I thought the guy was right.

The interviewer said: "That took amazing foresight in a sense, having heard it from the great Lew Hoad not to do it; you went ahead and did it." Claudio responded: "Once again, I'm pretty stubborn when I have something in my head. It doesn't mean that I'm right all the time, because I'm not. But I knew that I couldn't go with that [the way it was]."

The above stories are reminiscent of another champion who may have shared this trait of stubbornness:

> They wanted me to switch on the backhand too. "You'll never amount to anything with that two-handed shot," they all said. "If you want to be a big player you have to hit the backhand one-handed too."
>
> The members got angry with me because I wouldn't listen. In the end I think that's the reason I've gotten so far.
>
> It was important that I be satisfied with my game. I was hitting the ball well and beating some pretty good players when I was very young, and even though I'd tell the guys that some day I'd change, inside I knew I never would. (Borg, Scott, 1980, p. 16)

Mental Toughness

> Never give in. Never, never, never, never! Never yield in any way great or small, except to convictions of honor and good sense. Never yield to force and the apparently overwhelming might of the enemy.
>
> Sir Winston Churchill

> If you can force your heart and nerve and sinew
> To serve your turn long after they are gone,
> And so hold on when there is nothing in you
> Except the Will which says to them: "Hold on!"
>
> Rudyard Kipling, If

Mental toughness is a construct that has been defined in sport psychology literature, and by professional athletes. Arguments ensue regarding whether "mental toughness" is an inherited trait, or whether it can be nurtured and developed. While the following paragraphs don't definitively answer this question, it is clear that the opinions of champions

on this subject are diverse. As Vince Lombardi, a coach of many champions, said:

> Mental toughness is many things. It is humility because it behooves all of us to remember that simplicity is the sign of greatness and meekness is the sign of true strength. Mental strength is spartanism with the qualities of sacrifice, self-denial, dedication. It is fearlessness and love. (Vince Lombardi, cited in Ferguson, 1990, p. 6-12)

Many of the champions had their own version of the meaning of mental toughness. Andrew summarizes his view of this multi-faceted and often misconstrued concept:

> It is the will to win, the drive to get the most out of your ability, the challenge of being in tough situations and not giving in, perseverance, continuing to work when things are not going well to complete the match, or in your career, the drive to get in better shape to get more out of your body and your mind, the love of being in pressured matches, enjoying the battle.

Later in the interview, speaking of Pete Sampras and his attempts to win the French Open, Andrew furthered his conception of mental toughness:

> And the mental toughness would be that he will have to play a few more shots each point, to have the patience to do it, to go out and work hard enough to be physically fit. He lost in the French that year he prepared for it--by not preparing *enough* [italics added]. Physically, he wasn't fit enough--if he was Muster, he might have won it. . . . But he certainly has to go into it, preparation wise, assuming he's going to play three or four five setters in a row, and you have to be fit enough to be able to do that. And that's--that is mental toughness. . . . Knowing that he *has* [italics added] to do it, and doing it. He can go cruise in there to play the Italian, and not play anything else and do the best he can. But, to really win it . . . to me, that's the definition of mental toughness--to set a goal

to win that--and then do everything you possibly can--at the sacrifice of other things to do it. That's mental toughness.

Earl, when asked for the definition of mental toughness, responded succinctly: "Desire to win and understanding why you won or lost. But you like to compete. I was always trying to improve."

John offered his definition of mental toughness:

I guess mental toughness is just a matter of concentrating and being focused and not getting off the track when you're in a match--and not letting anything disturb you. I think that was instilled in us by all the various coaches, where back at that time, you couldn't really say anything on the courts, you had to just kind of focus in on what you were doing and remain tough and try to just, if you were losing, change your game plan and just try to inch your way back into a match if you were on the wrong side of it.

Matt had his version of how to define mental toughness:

Well, mental toughness is learning to compete every day to give yourself the best chance to win the match regardless of who your opponent is, or what the conditions are, or how you're hitting the ball on that particular day. It's just really giving yourself the best chance of winning . . . I'm convinced it's just mentally competing as hard as you can on a daily basis--every time you walk on the court, not giving a point away--you know, not tanking a match when you don't feel well, or when a guy is serving for the set or something--really resisting--it's just really the refusal to give in and the refusal to admit defeat and to try to stay positive when there are a lot of negative factors out there. I think mental toughness is really putting yourself in a frame of mind every time you go out there that gives you the best chance of winning on that particular day--no matter what the conditions are and how you are hitting the ball. . . .

I think it goes back to competing. Mental toughness would be play[ing] every point as hard as you can play--staying in the

present, and not thinking about the future, and being focused on what you're doing but specifically playing every point as hard as you can play . . . just going all out for every point and also I would say, specifically, if you can stay in the present and stay away from the past and the future, you're going to be pretty mentally tough.

Brett said:

The toughness is--you certainly have had to take some beatings; I had my share of matches that I played miserably. I was just not mentally ready--I couldn't play . . . analyzing your matches is going to tell you that your mental toughness wasn't there. Or you couldn't concentrate. I guess that is mental toughness. Mental toughness doesn't mean that because I've lost twenty matches, now I've got mental toughness. I don't think it works that way.

Serge provides the following:

We're talking about mental toughness . . . mental approach to the game. . . . To me, it's concentration, desire, pride, and you see it when it gets rough, when it gets to four-all, thirty-all, and when it gets into the tie breaker. Then when you see that kind of concentration, we're talking about mental toughness; those guys [the ones who successfully manage those pressures] are tough.
One of the best exponents of that for me with less great ability was Jimmy Connors, whom I coached. He showed that desire that he wanted to beat you, running down every shot. You could feel his energy. I mean the opponent would feel his energy. He didn't give you anything. You want it? You have to earn it!

But you see that Chang is completely tough because he's going with the idea that you have to beat him, you have to bring the ambulance to pick him up, because he's not going to give you anything. He can run down every shot and he's got less equipment . . . and he uses mental toughness, concentration, desire, great training habits. . . .

I think it's more born--to a degree you can be coached if you point it out with tapes now--to a degree. But it's a question of pride, too, training habits, desire. When I say pride . . . I think

that some people are born *more* [italics added] with that desire than can be coached. But it can be pointed out.

Psycho-Physiological Toughness. An emergent theme throughout the interviews suggested that many of the champions believe that there is no sacred division of mental and physical toughness--and that mental toughness cannot exist in the absence of physical fitness. For example, an unfit person could utilize the common sport psychology tool of self-talk through an auto-hypnotic suggestion: "I am fit." When the "self-talker" is desperately seeking oxygen in the fourth set of a match, the frailty of that belief is revealed. Brett says:

> You have to tough it out. But that's more in the drive of the body, physically trying to do something. Mentally, you can say, "I'm drained today." But if you're physically tired, you're mentally tired. And I think if you go into matches physically fit, then playing where you can play five sets and still come off saying, "Well I can go flat out for five sets." And that was the goal we all had. Mentally you have to be strong. But if you're fitter than the other person in the fifth set, nine times out of ten, you're going to win the match. And that's how we had goals, I guess. Not goals, but that was our mental outlook. Emerson said, "If I win one out of these two sets, one out of these three sets, then I'll win this match." So that's mental toughness. But that means going the distance when you're going to have to find--that if you're two sets to one down, there is no panic. You can win this match. And maybe that's mental toughness. Knowing that you have the attitude that I can win.

The interviewer responded: "It's interesting--this connection between physical fitness and mental toughness." Brett added:

> I think there is. I think you can focus a whole lot better; your concentration is a lot better. Show me someone that's tired and they're hanging their head and they're going to let that one go. Let

one go, the second one is going to go, too, and the third and the fourth. So I never let any of them--even if I'm just playing safe. I'm up 5-2 and he's serving. And I [wouldn't] say, "Well, he's serving now. I'll win my serve." I've never felt that way. I'll say, "Maybe I'll make it 6-2." And that's something that you either have or you don't. I don't think you just wake up tomorrow and say, "Well, I have mental toughness." It has to be experienced in the matches you play.

Elaborating on how Pete Sampras could win the French Open, Andrew adds his thoughts on this subject:

> But he certainly has to go into it, preparation wise, assuming he's going to play three or four or five setters in a row, and you have to be fit enough to be able to do that. And that's--that is mental toughness.

Stoicism. In conversations with champions, many athletes suggested that submitting to pain or an injury would debilitate the athlete and give his opponent an unwarranted psychological advantage. They made a determined effort to disregard any physical pain.

Olympic ski medalist, Phil Mahre, talked about his perspective on stoicism:

> If you let yourself limp, it gets to be a habit. If you don't limp, then you won't favor your leg. So I just told myself that no matter how much my ankle was killing me, I wouldn't give in, I wouldn't limp. (Phil Mahre, cited in Ferguson, 1990, p. 6-13)

Champion marathoner Alberto Salazar talked about his stoic attitude combined with powerful self-talk:

> Although I didn't really feel tired or sore, I didn't feel smooth. I started to feel bad as we were still going up Heartbreak Hill, but I felt the worst when we started to come down with about five miles

> to go. I never considered dropping out because . . . well, I just never considered it. I wasn't concerned with what (Dick) Beardsley was trying to do. I was just concentrating on staying with him. I kept telling myself, "There's no way I'm going to lose this race." (Alberto Salazar, cited in Ferguson, 1990, p. 6-13)

In this study, for example, Earl alluded to the fact that the year he won the grand slam was the year of his greatest physical challenges:

> And yet it was the worst year physically that I ever had. I didn't know it at the time but I had an abscessed tooth, and it was poisoning my system. And during the Australian Championships, I lost my voice . . . and then when I played in Paris, I had diarrhea. I'd have to have a friend get me a sandwich down on the court . . . and I'd nibble on a sandwich and get through the match. . . . Now we're playing Australia in the Davis Cup, at the Germantown Cricket Club in Philadelphia. I won my first singles match and Mako and I won the doubles--and now I woke up the next morning with a tooth ache. . . . So I went to see this dentist . . . "I'm going to have to give you a shot of Novocain, and a shot of penicillin. And then I'm going to take it out." "Whatever you say," I said, "You're the doctor." So he gave me a shot of penicillin and he yanked the tooth out--he had to put Novocain in it, of course. I said, "Boy, that's a relief." He said, "You're not going to go back and try to play Davis Cup again, are you?" I said "Yeah, I don't think Kramer is ready for John Braumwich at this point. He doesn't have enough experience, so, I think I'll be able to play." So, I went back and had a good night's sleep that night. And so I beat Braumwich in three straight sets.

Brett talked about the importance of this trait in his career:

> My ears started ringing a bit [after taking aspirin]. But I felt that that way I could play without any real degree of pain. There was some. It wasn't the shoulder always. This particular time it was my wrist. I sprained my wrist about three weeks prior, leaning on my racquet and lost it. And it twisted. So I had like a match box splint and wrapped it, and I put a sleeve over it--a wristlet over the top of it. And I never told anybody that I had a sprained wrist. My

wife knew because she was the one who put the match box on it. But it couldn't be wood. It had to be something like heavy cardboard--something that would give me some stability. Otherwise, I would have had to put the bandage on too tight and that wouldn't work. So I had a splint on either side and wrapped it.

The interviewer asked: "And no one else knew?"

No one knew about it. That's sort of going back to "poor me"; if you do--are you looking for sympathy? If you walk on the court, the attitude was, "I don't want you coming out with excuses." That was one of Roy Emerson's traits. He says, "If I walk out there, I'm going to play tennis. There's nothing wrong with me. If I lose, I've lost because you're too good and I'm not going to blame it on my wrist or my ankle, or ribs that were broken or cracked, or whatever." I don't know if that's an Australian trait; I don't know what it is. But the more you tell your opponent, the more he's going to try, too. Because he says, "Maybe his wrist is getting sore. If I just play a little longer it will show up." But if no one knows about it, then you play that alone. I think that a lot of the great players--Emmett Smith, you've heard about Emmett Smith. He's a football player who gets beat up. He keeps coming back and he plays because [he] enjoys playing, even though it's degrees of enjoyment. It's still enjoyment. You can be ecstatic when you're not hurting and you play great. But you can still be happy when you're hurting and still winning.

Acting Skills. The champions often talked about their abilities to conceal a weakness, injury, or feeling from their opponents, as Andrew attests:

> So I competed pretty well. I tried not to show any discouragement or dissatisfaction, which I think helped. Certainly, it helped me against a guy like Nastase--I sort of ignored him and ignored the situation. I remember one time, he said, "Geez, you don't even look like you're tired." I was exhausted, but I wasn't walking around and saying how hot it was, like he was. . . . That was a concerted effort, too, to try to stay on a fairly even keel on the court. . . . I

also tried not to show my opponent the weakness I was feeling. That was part of my mental toughness.

Matt said about his learned acting skills:

You know, the first and most obvious thing that Jim [Loehr] helped me with was just plain walking faster--and exuding more confidence and energy and trying to present an image on the court of a confident street fighter--even if you're playing terribly--kind of fake it, and just present yourself better. So, that was one thing and that kind of immediately got me going.

Steven spoke of his acting, which sometimes took the representation of another player who possessed the calm which, in a given moment, he may have needed:

A lot of it also was some acting--where I would pretend I was somebody else, [so] if I would get too hyped up I was able to relax my whole body by thinking--I had an image in my mind of what I wanted to look like, and actually that was Mats Wilander, who was my image. And so, I would--I had a habit of rushing, you know, I would have Mats Wilander in my mind, of just kind of walking around. Sure, I would still look like I was rushing but I think, from reading some sport psychology literature [after my career], that is a form of behavior adaptation or whatever it is to become an actor--to act the part. You know, if you're really mellow, act like Muster; think of yourself as Muster. If you're really hyper, maybe [Wilander].

Claudio spoke of acting in moderate terms when he said:

Well, I'm a big fan of body language; I really [am]. By the same token, I'm not a big fan of robotizing, being a robot. I'm not a fan of that. I think everybody has different ways of carrying themselves. Obviously, if you look half-dead all the time, more than likely, you are going to end up half-dead. But I think, obviously you have to carry yourself in a way that gives you confidence and you let the other player know that he may be beating you but he doesn't have to beat you all the way. When I

was playing, I played matches and after three games I knew that the match was over, because you can see that--unless I give it away there was no way this guy was going to beat me. You can see that. And you still go on the tour and you can pretty much see the different levels of positive energy that different people have. And I think that's important without killing yourself.

One of the best guys I've seen--there are two players I've seen that really come to mind. One was Newcombe. I always thought he played with an air of arrogance almost--but very confident. It didn't matter what his opponent did. And then Borg was the same without that; he had a little different style than Newcombe, but he played every point; you know, he was there until the match was over. And he never gave you a hint of what he was thinking or not thinking. I think that's impressive. In fact, it can be intimidating to other players, too.

Motivation

You are what your deep, driving desire is.
As your desire is, so is your will.
As your will is, so is your deed.
As your deed is, so is your destiny.

Brihadaranyaka Upanishad,
Seven Spiritual Laws of Success

The researcher asked Earl: "What were some things that were great motivation-makers for you--and what were some of the events that deflated your motivation?"

About motivation, Earl takes an educational approach. Well, I guess every time you got beaten, you figured you should learn something from it. Why did this guy beat you? . . . The first time I ever played [Bill] Tilden, it was indoors at Wembly in England, and I wound up beating him 6-3, 6-2, or something like that. So Tilden, when we shook hands, he said, "Earl, do you realize how few forehands you missed tonight?" I said, "No, I wasn't aware."

He said, "You missed three." Three forehands in three sets. He said: "You missed a few more backhands, but your backhand put me in more trouble than your forehand. But you only missed three forehands, and I had no place to attack you." I said, "No, I didn't realize that." He said, "Well you keep doing what you're doing, you're going to be all right." But he was a good student. He knew the game. . . . But you have to learn by who you play and by your wins and your losses.

Brett responded to an inquiry about motivation:

Just winning, I think. I certainly think a challenge is the best motivator for me. Either winning it for the first time, or then again winning it the second, third, the fourth, or whatever it is. That's motivation. Saying, "Well, I can win." I think as a youngster it's a motivator because you feel like you're going to improve. . . . You show me someone who's got *not* [italics added] too much in their pockets, I'll show you someone who's motivated. And it's hard for someone like Agassi and these guys to be motivated when they've done so extremely well in their life financially. It's the time in their lives, at this time in the world, when you can potentially make a tremendous amount of money [playing professional tennis]. The motivation sometimes is when you don't have too much in your pocket. The motivation brings out the best.

Matt's primary motivation was to improve his skill level: "I think the main thing that contributed to my motivation was my desire to keep improving. And it's hard to balance everything in your life."

When asked about motivation, Steven said:

I think I liked the process and I liked competing--I liked competing. I think the motivation was just that if you're going to do something, you need to do it right . . . if I was going to play tennis for two hours, I wanted to play at the top of my ability--and push myself as hard as I could . . . so, I was striving for success . . . seeing how good I could become.

In the context of motivation, Paul talked about being in high school, where he was becoming known among his teachers as a good player:

> So, that is a motivator for me, too, because I look at the guy--I was in high school and my geography teacher said to me--one day he said, "Are you ever going to play against Jimmy Connor at Wimbledon?"
>
> Paul corrected his teacher: "That's Jimmy Connors, sir." He [Jimmy Connors] was already an idol in my eyes when I was in high school in 1974. And so, here I go to Wimbledon for the first year, and guess who I play in the first round? [Jimmy Connors]. And when I got on the court . . . I wish the teacher could have seen me. And I played him tough the first set. We got into a tie breaker or something--on grass, court four. . . .
>
> I've had a few wins over him on the regular tour, but you had to play your absolute best tennis, and he had to be a bit off. But when he was on, I don't think anybody could beat him. He's a motivation for me, too, because I see his absolute dedication to himself, to the sport. But in terms of a professional tennis player, athlete, ambassador to the sport--in that sense, nobody can beat him. No way.

And about his current involvement on the senior Nuveen Tour, Paul said:

> You have to find within yourself--"Why do you still play this game? What am I proving here?" . . . Tennis is now being played on my level as a part of . . . "Let me see if I can still kick his ass." Number two: money is a motivator, but it's not a great motivator. I still make a good living off of tennis; it's not the end of the world if I don't win. It's nice to win because it's a matter of it being a carrot and not a stick. So, I'm playing number one as a living. And you have to find the balance to want to do it. And, you know, do you still want to do it as badly as you did when you were nineteen? No, I don't have anything to prove anymore, but I think this tour that we've started is part still great tennis, and part nostalgia.

And Michael said about motivation:

> I thought it was great when my pop saw me get to the semi-finals of the U.S. Championships. It wasn't pleasing someone else in the sappy sense . . . but it really was fun being able to share that with somebody else. It can be all sorts of levels. It can be probably sick, too--whether it be a spouse, a girlfriend or a coach where you're playing too much--trying--where it becomes an obsession; it can be hurtful. It's like a reastat; if you can put a reastat on playing for somebody else, and have someone tinker with that so you get the most out of it, that would be a pretty important mechanism--a tool.

Serge talked about his motivation: "Well, first of all what motivated me if I played with the big guys, with the big serve, I tried to beat them. Being small, that was an accomplishment, psychologically and mentally. I beat that son of a . . . I'm glad I did it." When asked by the interviewer: "Did you always love to compete?" Serge said emphatically that he did, and reflected on a match he had played that very afternoon:

> Oh, always. I still love it. And I hate to lose, even now--I'm seventy-seven [years old]. I just beat a guy today who's sixty. Three sets, and I beat him--and I'm playing with no legs. I went from desire. . . . I'm in great shape; I can almost walk . . . but 'geez, I'd hate to lose to that guy. If I lose to him, I'd better call it curtains.

About detractors from motivation, Matt described echoes of what many of the champions said about the hardships of traveling, and achieving a balanced life:

> It's hard to balance everything in your life . . . between your family and your job, and certainly I think that the toughest thing

about playing tennis for a living is all the traveling, and I think that if there is anything that contributed to my lack of motivation at the end of my career, it was the desire to stop traveling so much and just--the thought of getting on the plane and going to Asia--or getting on the plane from here and traveling twenty-five or twenty-six hours to get down to Australia; that wasn't very attractive to me anymore. I like being in all those places, if you could just wrinkle your nose and get there it would be a lot easier, but unfortunately that's not the case. And sometimes, when you're traveling so much, say twenty-five, thirty, thirty-five weeks a year, you feel kind of disconnected; you are essentially a gypsy; you feel, you kind of lose your roots to one place and I kind of felt that some . . . you don't feel like you fit in anywhere sometimes and that, to me, is the hardest part about all the traveling involved, in either playing or coaching--that constant traveling and a feeling of being a little disconnected; I used to come home and Marie would have the girls on a good schedule and I'd mess it all up; I didn't quite fit in, you know, and it took me a while to kind of get into the home routine.

"One can never fully understand human motivation and what makes someone perform or act in a certain way. Part of the enjoyment of competition is its very unpredictability" (Hemery, 1986, p. 199).

Eagerness

Several of the champions discussed the importance of being eager to go out onto the court, and to feel enthusiastic about playing. Michael, in particular, is a proponent of this idea:

> There was a book on how to raise labradors. And part of the deal is that you don't let the lab out of his pen except for an hour and a half when you're training him. And the reason is that when he gets out, he is unbelievably keen. He would die for you. He follows instructions with whistles. And I trained a lab when I was in law school and followed the book and I think that players are animals and to the extent that--you don't let a player at age twelve or at age

fifty go out and play twelve hours a day. That's very destructive to their interest level. You want to keep that magic buzz alive.

On the theme of eagerness, Matt concurred with Michael:

To me, one of the most important things about playing well is being mentally fresh and eager when you go to a tournament--really excited to be there, and you're really looking forward to the competition--and if you hang around the courts too much--or just totally train and practice and practice and train and practice . . . [you get stale].

Drucker (1997) writes the following about Jimmy Connors:

What's not so well known is that Gloria and Bertha began teaching Jimmy in short, intense increments. "I don't think I was on a court more than 15 minutes at a time until I was ten," he says. This way, Connors always left the court primed for more. It's the same attitude that continues to drive his practice sessions. When he was number one in the world, Connors rarely practiced longer than 90 minutes. But even in practice, Connors' sparks of desire are infectious. (p. 12)

Earl reflected the importance of eagerness when he won the first leg of the grand slam. While spending three weeks on a boat from the United States to Australia, he was ready to play by the time his journey had ended. But he remembered some wisdom that had been passed on to him by one of his colleagues, Ellsworth Vines:

> For example, Ellsworth Vines, I called him later on when he was not feeling too well. He was on the way to dying. So I felt I should pay him a compliment, because I think it was true. I said, "Elly, I now realize that you're responsible for my winning the grand slam." He said, "Oh come on, Earl, what do you mean?" I said, "I stayed with you in your house before going down to Australia and you told me you played so many test matches run on Davis Cup lines against the Australians, that you were tired as hell when you

got back home when the season was over down there. I profited by that." He said, "What good are test matches--they don't mean anything. They're matches run on Davis Cup lines--but that doesn't mean that Australia is the champion nation if they beat you." They were just exhibitions. So, I played thirteen test matches. I only won one test match out of thirteen, because I tried to win that one. And that was against Adrian Quist. But I didn't put myself out by winning all these matches at one hundred and fifteen degree weather. By the time the Australian Championship came around, I couldn't wait for the ball to bounce I was so eager. And the Australians were pooped because they had beaten me in all the test matches.

So, Harry Hopman, who used to write for the Melbourne Herald newspapers, said, "Well guys, I guess they're getting to Earl, they're beating him in all these matches. It looks like we've gotten to him." So then when I played in the Australian, I won all my matches easily. So Hopman said, "Well, I see what Earl was doing now. He was testing these test matches like they were exhibitions, practice matches. He didn't try to win them. He didn't care whether he won. So he was fresh as a daisy by the time the Australian came on." So he realized what I had done. So that's the reason I complimented Vines. I said, "Elly, you pointed out--I was going to poop myself out winning these unimportant matches and I might have been too tired to even think of winning a grand slam." He was very pleased to hear that. I don't know whether he believed it--but I *did* [italics added] believe it. I thought it was true.

Discussing the geographical disadvantages of coming from New York and New England (for aspiring tennis professionals), Michael reflected on one of the positive aspects of being raised there:

> So the interest was in the back of my ear and the difficulty was that it was very difficult to compete against Californians and Floridians who could play all year round. Which was the bad news again. The good news was that I was very eager when summer came around to play.

And finally, describing the positivity of eagerness, Michael says:

I would come up to the nationals at Forest Hills and feel in unbelievably good shape. And I'd have four days off from law school right before the championships--and how I would train is I would get up in the morning and do what I wanted to do, which was to play tennis. I'd play six or seven hours of tennis. By the time I got to the tournament--we didn't know anything about periodization and sort of keeping a harness on you, so you're incredibly eager . . . so that part is a very key thing . . . to try to keep your eagerness.

Paul, expressing his own view on this theme, says:

I feel like I've worked very hard and I'm more of a natural type of player. I'm not a Lendl type, who can go out there, or a Vilas, who can play six hours of tennis a day. I'm not that type of person, and I would lose my zip for the game very quickly. So, if I practice one and a half hours a day--two hours max, that's plenty for me.

Confidence

> I bounce the ball, and in the space of that moment I know I will win. Today we are like the poles of two magnets, the ball and I. We will find each other and connect, because this match, this game, and this point--are all mine. I'm in the best shape of my life, tapping into the wellspring of ungodly endurance that clay calls for.
>
> Martina Navratilova, Breaking Point

"All champions have inner arrogance. It's that confident feeling they have that says, 'I have the edge over you,' or, 'You don't have a chance against me' " (Ferguson, 1990, p. 4-23). Pam Shriver, a U.S. Open finalist in 1978 when she was just 16, understands what Williams [a current promising champion] is going through:

> Williams, it turns out, just doesn't care what her peers think about her. Asked to name her favorite player, she picks . . . herself. "Why would I be out there playing professional tennis and doing great," she wonders, "And then say someone else is my favorite?" . . . Most champions or potential champions have this special attitude that sets them apart. . . . Sometimes it comes across as arrogance. . . . (People Magazine, November, 1997)

Some individuals have high confidence, without possessing the parallel skill attainment. Scott (1995) states: "Bush . . . has an opinion of his game that far exceeds his ability: He simply has the confidence and the belief that he will prevail" (Scott, cited in Plimpton, 1995, pp 27, 28).

Confidence, seemingly, is a process. Like the zone, it has mysterious comings and goings. "But confidence is an elusive commodity. One minute you have it. The next minute you don't." (Stolle, 1985, p. 74).

Confidence, however, seemed to lead Earl into--and through his career. Interestingly, he spoke of his confidence as a borrowed, or transmitted phenomenon:

> I never knew whether I was going to be that good--but when Tom Stow said, "You're the best player in the world, I'm convinced; go out and beat the heck out of everybody--you can do it." So when I started to beat all these guys, you know, when I turned professional after Vines, I could beat everyone quite comfortably.

The Killer Instinct; the X Factor

> The "X Factor" I called it, though it is a quality which goes by many aliases: competitive spirit, the will to win, giving it 110 percent, the hidden spark, Celtic Green . . . guts, the killer instinct,

élan vital, having the bit in one's teeth, and so on--qualities which if synthesized into a liquid form and corked up in a bottle could be sold by the millions.

George Plimpton, The X-Factor

All of the champions were asked what the killer instinct is--and if it is necessary for champions to possess this characteristic. Paul responded:

I think killer instinct is--when you talk about total selfishness--you've heard that before--I think killer instinct--every champion has it; you can't run away from killer instinct if you're a champion. The killer instinct is the same quality in each tennis player, but Michael Chang has a soft personna--killer instinct like you wouldn't believe. Sampras--nice guy, killer instinct, just as strong as Chang's. John McEnroe, major killer instinct, major attitude, major ego--major everything. That's just him. But the killer instinct is just something that everybody has and it's that single purpose of defeating the other person and not wavering until the last point is over. It's not something that you can instill in somebody. I think . . . that tremendous focus and the desire not to lose; that gives you killer instinct . . . it's the focus that really gets the killer instinct going; I think that there would not be another person on this planet who can focus as Connors does. And his killer instinct is still there. It's not something that you can teach somebody. It's something that has to come from within--desire--the will, figuring it out--that's all part of the killer instinct . . . and you've got to work hard to get there; you've got to hit your ball properly . . . you've got to focus well and you have to concentrate; you have to analyze the situation, and not go for risky shots when you have forty-love.

Regulation of Emotion

I cannot regulate the wind, however I can control my emotional reaction to the wind! Consistent success in competition demands that you control what you can, and control your emotional response to those things you can't.

Caprio, A True Winner Can Control His Emotions

> Competition at the world-class level is extremely challenging and stressful for even the most experienced competitors. Players are required to regulate powerful emotions such as anger on a consistent basis. . . . Given the high stakes, financial and otherwise, the pressure to win can be suffocating. This, coupled with the fact that a single point can often decide the outcome in a close match, leads to tempers flaring. The task then becomes one of dealing with that anger effectively when it does occur.
>
> (Striegel, 1996, p. 3)

A factor discovered in this study which is synonymous with that described by David Hemery (1986) in his study of champions follows:

> In these highly competitive athletes, there is a degree and quality of intensity which not only can be seen but felt. However, in almost all cases, they maintain total control of themselves. It is this quality of maintaining a calm and controlled approach while "fired up" that allows them to perform at their best under the most intense competitive fire. (Hemery, 1986, p. 200)

The interviewer inquired of Peter: "Is there a way that you regulate your own emotion on the court, when you feel under-aroused, or over-aroused? Is there any kind of optimal level of arousal that you can regulate for yourself?" He responded:

> Well, you fluctuate. In the Davis Cup, you never had *any* [italics added] troubles getting up for those matches--early matches you might have--you know you're going to win--just *know* [italics added] you're going to win; you know the competition isn't as strong, but there would be times when you just weren't hitting the ball that well; that happens; I learned that that would happen a lot and you just had to do the best you could and hope you got out of it; there's no trick, at least I didn't find it--all of a sudden to go

from not timing the ball to timing it--other than to keep trying and think about some little things to balance and stuff like that, but there are days when you just didn't see it and other days when it was good . . . and I don't think anger should play that big a role--I think anger, for me--anger was just being mad at myself for not doing what I should have done.

The interviewer asked: "Would it work effectively for you sometimes if you got angry?"

Yes, at times it did. Gonzales pushed that in me; he said, "If you don't get mad, you're not going to play well." So I was listening to my coach--but if I got mad at times, I played like an idiot; I didn't think--and I didn't care what anybody else thought.

Charles, responding to a question about emotion-regulation on the court, said:

Actually, I had emotion; I was pretty emotional on the court--not to the point of jumping up and down when I hit winners. I was more emotional when I missed them--when I had opportunities and missed them . . . I wasn't a "yah-yah-yah" punching the fist [type], but those things have changed; none of the players of our era were like that. All the players today . . . that's also one of the mystical things that people want these days--is emotion from the players on the court, and I don't think you'll find too many Australians agree with that philosophy. It's more of an Americanism. If you don't show emotion over here in America, there's something wrong with you. That was never the case in Australia. But the Australians now, because of the times, are changing a little bit.

Earl gave a personal account of how he contended with his own nervousness during a match:

Just by dominating the players. If they couldn't do anything with what I was doing to them, then I could control the play and everything was going my way. So as soon as I felt that happening, then I could gain confidence, and there was no problem.

Paul summed up his views on the theme of emotion regulation when he said: "But if you can retrain a spirited horse by dousing the fire a little bit, but not kill the lion in it, I think that would help most players."

Ninety-Five Percent

> When I was reflecting on this study with my coach . . . his wife Jean came up with a reflection which may well assist in explaining why there are similarities and yet crucial differences in each area. I had referred to the fact that I was not the fastest nor the strongest in my Olympic final. She said, "you may not have had 100 percent of any one thing but maybe you had 95 per cent of everything." In reflecting on the results of this study, her comment may be close to a perfect summary answer. In each area a few athletes are an exception to the rule but they were not the same few athletes in each case. All of them have most of the attributes in common. This means that being different or missing out on an aspect or two does not rule a person out from fulfilling their promise or reaching their goal. (Hemery, 1986, p. 199)

The above quote reflects the sentiments of some of the athletes in the present study. They may not have been the fastest, the strongest, the most accurate, etc. But they had close to the best of all the aggregate skills demanded of a professional tennis player.

Humor

> Almost all of these achievers found humor an invaluable part of life, seeing it as a tension reliever. Humor is a good ice-breaker and shared humor can bring individuals and groups together. In an environment of high intensity, humor can be a life-saver. A few athletes pointed out that their training time was serious throughout. For almost all, competition was serious--hence the need between times to lighten the mood. (Hemery, 1986, p. 203-204)

While the participants in this study were not asked directly about humor and its role in their lives and professional development, many of their responses were laced with amusing anecdotes. Some examples are as follows:

Charles, when told by a woman walking by (during the interview) that she had seen him on television, responded by exclaiming: "You didn't wave!"

Kevin, talking about his early exposure to the game of tennis, said: "When I first became interested in tennis my parents sent me to a clinic, not a medical clinic." He later said that his parents allowed him to go away with his coach for the summer, and added: "I don't think I was very nice to have around the house."

When asked about the zone, Kevin talked about the stereotyped television commentators' description of the zone: "The ball looks like a grapefruit." He said, "yeah, sometimes it *feels* [italics added] like a grapefruit."

The interview with Serge was marked with his wit and humor. When talking about his love of competing and his current level of physical fitness, Serge said with a hearty laugh: "I'm in great shape; I can almost walk."

Later in the interview, Serge was describing a match he played against a big server, with whom he had a close match, but prevailed. He

said: "Luckily, he couldn't move. He moved like a turtle with a broken leg. Luckily."

Matt told an amusing story about an experience that he and his wife had:

> At the U.S. Open . . . which was my last tournament, we had the drug testing at a hotel near LaGuardia [Airport] and Marie went with me to my drug testing after I'd lost . . . and I was waiting in the waiting area to go in and Boris Becker comes in and Boris is just eighteen and he'd already won Wimbledon twice by then, and Marie is sitting with me--and Boris is a really nice, bubbly kind of young guy and he comes up to me and we talk a little bit and he kind of looks at Marie and kind of shakes her hand and says, "Hello, Mrs. Adams, my name is Boris." [She responded], "Yes, you can call me Marie; you've won Wimbledon twice now and beat the hell out of my husband and made him feel like an old man at Wimbledon in 1986."

It was the impression of the researcher that the champions' sense of humor was highly developed, and appreciated. What remains unknown--and would be a worthy topic of another research project, is what role that sense of humor had (if any) in their championship development. Did this resource, for example, have anything to do with their abilities to have perspective . . . to recognize, as Boris Becker did at Wimbledon at seventeen years of age, that after all, whether he was victorious or not, it would not precipitate a third world war.

Process versus Outcome

> Sometimes I think we worry a little too much about the outcome of what we're doing, [rather] than actually about doing what we can--and see what the outcome is. (Claudio 1997)

The focus of the present section is to establish the orientation of the champions regarding their in-match focus, and to discover whether they were more successful when they focused on the outcome of the match (victory)--or the process of the match (point by point), or a combination of the two approaches.

Brett, in his description of the importance for him of playing point by point, said emphatically:

> No, I never thought of winning. No, I thought, "This will be great. I'm in the finals, in the semis, great." But certainly not thinking [about victory]; that's not the way to win the match. It's always one point at a time.

Brett went on to say that his focus was present-centered--except when he was losing. Then, he would reflect on why, and attempt to alter his tactics, but never think ahead to winning:

> I'm losing these points by going down the line. If I'm getting them in, and he's volleying cross court [for winners], something seems to be going wrong here; I'm not winning these points. . . . He seems to be nullifying my ability . . .

From there, he would alter his shot selection, and evaluate the results later.

Favoring a process orientation, Steven responded first as a player, and then as a coach:

> Well, I think the process is extremely important. Certainly, if it's not translated into the outcome, then we still have a problem. . . . I want the results; I'm not going to kid you--I want to win every

> match that I play, but I think to get there, you have to focus on somewhat of the process . . . I don't think you can just focus on the outcome. I've seen it . . . I've seen too many kids just focusing on the outcome in my two years as a national coach, it's just amazing; it's really amazing [and really destructive]. [A coach should] not have things so outcome oriented if he can. Everything is outcome oriented in a way, but I think, at least, with your response to their winning or losing--have it based more on *how* [italics added] they competed.

In his appraisal of the process-outcome dichotomy, John analyzed the situation, favoring a process dimension, with an orientation to future results. Principally, his response was about ideal player development conditions:

> I think when you're growing up, it should be a "result-process." I know that my coach was always looking to how I was going to feel when I was eighteen or nineteen. When I was eleven or twelve, if I won, that was fine, but he was looking into the future. Whereas a lot of these kids I was playing, they wanted to win at all costs and so they weren't really improving on anything that they had. And that was mainly--they were just playing from the back court, and they never developed a net game, and so they ended up not going anywhere. So, I think that's the problem with a lot of parents and a lot of kids today. I think there's too much emphasis on winning at all costs at the young ages. They should look a little bit more into the future--like Sampras is a good example. He didn't win that much as a kid . . . but he's winning everything now. The junior titles are nice. And every kid, of course they want one. But the parents and the coaches have to be there to guide them, and tell them that's not the end of the road.

In his assessment, Paul was expansive in his telling of the importance of focusing on the process:

> When you think about it, the process is very important. . . . Winning is at the back of my mind. But how do you get there? I

think that process thinking is not emphasized enough. I think the only guy who does that well is [Michael] Chang. . . . I think he's probably the best athlete out there in terms of process. He's not looking at the end result. He knows it will come if he does this extremely well. . . . I think that what has happened in modern day tennis is that the end result is the big cherry; everybody is looking at the big dollar sign . . . but the process maybe got lost in [the mix]. . . . If you just think about winning and winning and winning every time--and you don't, you're setting yourself up for disappointment every time--90% of the time. How often do you win a tournament? . . . The focus is on the process rather than on the win. And . . . if [you] do that process well, then the win will come. And that's really what you should think about. Because you don't set yourself up--the process is the fact of you focusing, getting the killer instinct properly . . . and making sure that you are mentally fit . . .

This is how I logically think things out. You're never going to change a guy like McEnroe doing that--he just happens to think the process out--with all this craziness going on. I mean, he's sort of the crazy scientist who invented the wind mill. It's all this stuff out there--but yet there's a sort of lion, the golden lion who gets to the real stuff--and that's what he does well--I don't think you can explain why he does. I would say that the process is very, very important. . . . It's very important to get the process in your mind squared away as much as possible before you go out on the court. And I have missed too much of the process, sometimes. I've given myself too much heartache, because when you think you should win, you're going to lose. When you don't, you might. I would say that's more important.

[But] when I go on the court, I never think of losing. Losing is just not in my [mind].

Simon's response to the question reflected a process inclination, but one which did not come early in his career:

I wish I had learned it earlier, but the truth is that winning was always my focus--to my detriment. And I very much admire the

guys like Jim Courier, who, in my opinion seem to have it right--but they say they're just trying to get better--"I'm trying to drive myself and get better," which takes the pressure off of winning. And then, if you lose, you can say, "Well, I learned something during the match, and then I go on to the next one." Having said that, I was a bull dog sometimes; I mean--countless matches that I played--I never ever let go--tried like crazy--hopeless matches, so you just are never one thing; you're always a number of different things at the same time, in the space of the same period--but I did learn things as I went along.

Peter said it with few words:

I think I'm just playing; I'm playing to win every point, and I know I can't win every point, but I'm trying to win every point--and I know the score--and I know what's going on in the match, and so I'm not thinking "focus, focus"; I think concentration is the correct word.

Claudio added:

There are very, very talented players [in Spain], but for some reason they get stuck at one point for lack of freedom, and too much worry about the result instead of going and pretty much--learn. There is one thing that I learned from some of the old guys --[which is] that every surface will teach you to do something well--really well--how to perfect something.

Claudio went on to say about process in his own career:

That's what I understood--I understood it kind of late, but I understood that it doesn't help you--worrying about losing. Or what's going to happen. And I know it's hard sometimes. Say you have a really good draw--geez, you play this guy in the quarter-finals, you play a guy that you beat fifty times in the semi-finals. It's pretty hard not to go to the next day. But once you play, you know better, and you give yourself into the tournament and you give yourself into the match and then after that match, you worry about the next one. But, to me, it's a process, just like everything

else . . . but just keep it simple--and keep the information where you understand it . . . in a way where it's not that much information--or that confusing that every time you go on a tennis court [you're very uncertain about what you're trying to do]. Anyway I try to do it normally--just keep it as simple as I can. So, it's a pretty tough sport.

Edwin added his perspective on the process theme:

I think if you start thinking in the overall, the finish of the match, then you get ahead of yourself, and that's when you do have a problem. You can't start thinking [about winning] when it's 4-2 in the second set, you've got to--you've really got to go one point at a time--one game at a time. Because if you start thinking too far in front of yourself, that's when you do get in trouble--the game starts slipping away.

Kevin advised the interviewer that his perspective on process was not likely to make a best-seller:

I would say . . . you've got to stay where you are--for me. . . . Most guys you talk to, I think, would tell you to focus on the moment. It keeps them out of the past and keeps them from thinking too much. I think if you think about the end result, I mean, imagine Patrick Rafter thinking he's playing for $650,000. at the [U.S.] Open. I don't know anybody who could hold their racquet at that stage. But you don't think about that--you think about what you're doing. You're thinking about your first serve, about the game that got you there--"What do I have to continue to do? You've got to get a good percentage of first serves in--okay, it starts right now"--that type of thing, instead of thinking about the future.

The interviewer asked Kevin if he had developed any effective ways of bringing himself back to the present when he found himself in another "time zone":

If things were not going well--or when you got in a tight situation, I used to try to keep things pretty simple on the court. When I was

in a tight situation, what I would try to think of was just focusing on the ball--just watching the ball.

The interviewer asked: "And you'd say to yourself, for example, 'Just watch the ball?' "

A hundred times--more times--yes, and that's probably not going to win anybody a best seller--writing that advice. But, that's what--I just try to keep things simple and then if I could focus on that, that sort of takes you away from everything else--forward or backward, because you've got to do that each time you're hitting, and it's got to be done in the present.

When Ken was discussing the zone, he brushed the subject of process versus outcome, when he said:

I had these days early in my career; they were great--because I just went with it and I didn't have an outcome thought in my head . . . but later on in my career, when I wasn't playing as well, I would have those great days, and I would always be thinking--"s . . t, I hope I can keep this going"; that type of thought would come into my head [and interfere with the zone].

And most succinctly, when asked how he played as a touring professional and how he directs students, Serge said about this subject: "Point by point."

The interviewer asked: "Don't think too far ahead?" "Hell no. Point by point. And play me the point right, that's all I want."

Dream Element

If you can dream--and not make dreams your master . . .

Rudyard Kipling, If

Some people dream of success
While others wake up and work hard at it.

Anonymous

It seems certain that the childhood dreams of these boys and young men were influential in their development as champions. Clearly, they dreamed of success. But they also woke up, and worked hard at it. For some of them, the dreams were funneled into specific goals.

For many of the champions interviewed, the livelihood of professional tennis player could be best described as dreams made manifest. For others, there was the impression that, as a child, they didn't quite dare to dream so boldly. Asked by the interviewer: "As you were playing as a kid, did you have dreams of becoming a great player, or was it just sort of a love of the game?" Earl responded:

> I used to have to take a ferry boat over to San Francisco to go to Wilson's Sporting Company to get my racquet strung and I dreamed that I was on the boat going over to England to play Wimbledon. Just fantasizing--but I never--I never knew whether I was going to be that good.

Steven claimed:

> Sure, I mean every kid does that--certainly every kid does that. You know, Sergi Bruguera, after he won the French Open said that this was his birthday wish from the age of seven years old . . . every year he wished that he would win. Isn't that incredible? That is unbelievable--unbelievable; that was pretty neat.

The dream element decidedly had a role in Ken's development:

I had a dream. I said, "This is what I'm going to do"--and, you know, normally an eight year old kid might say that and the next day, they're going to be a football player--and the next day, they're going to be a fireman. But I was--I played all day, every day for all those years and I think that's primarily the main reason that I made it . . . I know the reason the dream came about really was--I was five years old when I first played tennis and apparently . . . I was able to hit the ball over the net, back and forth with my dad ten times when I was out on that first day--I don't know whether that's true; it seems a little far-fetched to me, but that's what my dad says . . . and then I remember, maybe [I was] six years old or seven years old, or five years old--I don't know how old I was, [I was] watching one of the grand slams . . . I saw a little guy playing a big guy, and I was rooting for the little guy, since I knew I was going to be a little guy. The little guy won; it might have been Laver against Newcombe . . . and, anyway the little guy won, and that's when I thought, "Yeah, I'd love to--I want to do that; I want to be the little guy."

And Peter said about his experience:

You dream about someday playing at Wimbledon or playing Davis Cup, but you don't really think that that's going to happen and then, all of a sudden, it does. You're there . . . and then, as I got better my dream was to someday play pro and play against all those guys that were my heroes.

Edwin added:

I grew up--Newcombe was in Sydney and I was in Melbourne, but . . . we had the dream of hitting on the garage wall at the same time as Ken Rosewall was playing Davis Cup matches--and wishing that someday we could be like . . . Ken Rosewall, playing Davis Cup. . . . Obviously you had a dream, to want to be like them . . . and Newcombe and I, when we played our first match, and I won like 16-14 in the third set--that was probably the start of the dream part of it.

Kevin talked about the dream as having a developmental process:

> Well, maybe it was in stages . . . I think that everybody, as a kid, if you played baseball, or something else, you always dream of hitting the home run or catching the pass in the Super Bowl. As a young kid, you know, that's because you saw that happen--maybe we would have had thought the same thing if there was open tennis [and we'd seen it in person or televised].

When speaking with the champions about the dream element of their development, the interviewer was reminded of the comments Yannick Noah made to a commentator when he won the French Open championships: The commentator asked Yannick: "Did you ever dream about this?" And Yannick said: "I've won this championship in my mind thousands and thousands of times, ever since I was bashing the ball against the wall as a small child."

Goal Setting

Playing professional tennis for some of the participants in the study was a lofty dream which came true. For others, there was a planned itinerary upon which they etched their path:

> Obviously, the first thing, I [was] an eight year old guy that set a goal and never wavered from that goal; I don't think there are many people [who] at that age do that type of thing. I had this goal and I didn't waver from it until I was five in the world; so that's probably the most important thing. (Ken 1997)

Kevin's response closely paralleled Ken's response. However, he stressed the developmental aspect of dream construction:

> Well . . . it was in stages. I can remember when I was young, and going away to my first tournament . . . and then traveling around the state . . . and wanting to do well in the state tournament--so, at

that stage *that* [italics added] was doing well; that was the goal. I can also remember later on, late junior years, the goal being wanting to play Davis Cup, because don't forget, back in the sixties there wasn't open tennis, so Davis Cup was as far as anybody could go. Being a pro--that was not on anybody's mind, I don't think . . . it went in stages. . . . My goals were what was immediately near; you could see it potentially happening. . . . In that regard I was [a goal-setter], but I never sat down at the beginning of the year and said, "O.K., top 10--or X amount of prize money." My goal was always to be the best tennis player in the world . . . and it's a pretty high goal. You know, there is only one guy who could do that each year--and I never did, but I never felt like I failed. But I never set any short term goals or anything concrete. If I could play as well as I could, then I was pleased. . . . So, [I had] long term goals, but I don't remember setting short term goals.

Identity

Some of the champions indicated that they "were" their favorite player for much of their childhood. In Simon's case, he became the player he was fantasizing about being--not only to himself--but to his native land:

> It's actually the truth; it's what I did. I *was* [italics added] Eric Sturgess and I was playing those other helpless fools. . . . I was at that time dreaming about becoming Eric Sturgess; I truly don't think I was because he was so far away and above even my imagination--that I didn't imagine that that was where I was headed. But it is where I was headed, because I *was* [italics added] Eric Sturgess to my home country for a decade or more.

Ken spoke of his identification with the "little guy" he saw in a televised match, and wanting to be like him. The little guy he was watching could have later earned the title "little big man;" it was Rod Laver. Ken said:

> I remember, maybe six years old, or seven years old, or five years old . . . I saw a little guy playing a big guy--and I was rooting for

the little guy, since I knew I was going to be a little guy. The little guy won; it might have been Laver against Newcombe, or something like that and, anyway, the little guy won and that's when I thought, "Yeah, I'd love to--I want to do that--I want to be the little guy."

The interviewer asked: "In a way you had the dream and in a sense the belief that a little guy could make it in the sport, too?"

I remember liking the little guy. So, it's sort of like I identified with somebody. Eventually, Laver was my hero when I realized who he was--but that was my first moment--I remember seeing it on TV--saying, "I like the little guy."

Self-Knowledge

If you can bear to hear the truth you've spoken . . .

R. Kipling, If

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

T.S. Eliot

Billie Jean King said:

"Have you ever noticed that the individuals who are your highest achievers are very together? They have tremendous self-understanding. . . ." Although I did not spend long with each of them, my impression was that they were all very well balanced individuals and also possessed a positive view on life. They were almost never pushy. In no case did I find that success had gone to their heads. Quite simply, they were human beings with a talent

for sport, who were striving for excellence and learning much about life on the way. (Hemery, 1986, pp. 203-204)

Boris Becker said:

In general the desire to compete is a healthy one, because it is not just about winning, but about finding out who you are, and what you're capable of, under various and sometimes stressful conditions. (Becker, 1998, p. 53)

The athletes in the study were neither asked directly about their level of self-knowledge, nor what role it had in their championship development. Rather, this theme was emergent from the many questions whose content was psychological in nature.

Claudio said:

But the thing that helped me be in that state of mind--or as close as I could get to it always . . . I'm talking about having myself to myself. Allowing myself to be with me and understand myself a little better. And I started doing that when I was twenty-five. I started doing some reading that has to do a lot about yourself--and understanding more the way we are, and how we react to things--and the more I did that, the happier, the more comfortable I became with myself. And therefore it was just easier for me to go out there and not have these people pulling from different parts of my head. So it was easy for me to attain. And I think part of that was because of that--because I allowed myself to know myself better; I did some reading, which I still do, which I enjoy, some stretching that I used to do, some breathing. Here's something that allowed myself to--once I got everything together to kind of be calm and relaxed. And sometimes, once again, as I played more and more, I understood that better and it was easier for me to do that.

He went on to candidly express some of his values and the significant role of self-knowledge in his life:

> The goals are not about money--money buys you things and it gets you a better car and houses and whatever, but the bottom line is how comfortable you are with yourself and how happy you are, which is not very easy to describe. . . . So, I think that unfortunately the way things go, if you do something really well, you make a lot of money and automatically--you're famous, you're on TV, you're a great guy . . . and that's not the way I perceive it. I think the more I get to know me, get to know why I react--what I appreciate--the easier it is for me to be comfortable with myself because I get to know more and more about what I like and what I don't like.

"Were there any particular books that were useful to you?" asked the researcher:

> They were normally books of poets or thinkers and a few guys that I enjoy reading, which one of them is Kahil Gibran, another guy was Krishnamurti; I enjoy him a lot.

Sometimes, self-knowledge was an expression of the athlete's awareness of a tendency or a personal characteristic. Brett said:

> It's not my trait. . . . I couldn't keep hitting the ball identically the way the guys do today, 'til the ball doesn't come back. I'd hit it out after about four, I'm sure. . . . I wasn't good on consistency because I thought, "If I haven't won this point in six or seven shots, I'm not going to win this point." So, I found a mechanic that I thought would work for me.

The champions suggested that the professional tennis tour offered learnings which often were the result of contending with a myriad of emotions from both victory and loss.

Kevin said about his personal development on the tour:

> You're always going through that as a player and I think that one of the tricks of playing the pro tour is finding out how you play your

best--week in, week out. I used to have a problem with that--getting down on myself; it used to affect me a couple of weeks after a bad loss. Then, later on in my career, I learned that about myself and was better able to deal with losses.

Paul talked about the role of this theme in his development:

In the long run you realize--"What the hell am I worrying about what these people think I should be doing here--why am I trying to be there when I have to be happy with what I am doing--and knowing that what I'm doing is what I think is the best for me?" And, come what may, let the chips fall whichever way they may be.

Marcel Proust espoused a process orientation to learning, being and knowledge when he said: "The real voyage of discovery consists not in seeking new landscapes but in seeing with new eyes" (Marcel Proust, cited in Loehr, 1994, p. 186).

The Zone

Athletes seek the elusive exercise high, the Zone of peak performance where there are no thoughts and the crowd and the contest disappear into a magical moment of perfection, a total harmony of body and mind. . . . The mind is composed, the body is functioning in an efficient, relaxed way--*in the midst of the most dynamic physical activity*. The athlete . . . is doing less and accomplishing more.

John Douillard, Body, Mind and Sport

The "zone" is an anomalous event which occurs without conscious intention or willing. Were "it" receptive to conscious manipulation, its presence would be more frequent. The prevailing experience of those interviewed is that of being "out of" the zone, as opposed to "in" the zone.

The challenge then is managing to triumph despite not playing extra-ordinarily well. In this section, champions report the effortless play of the zone. Then, the champions describe the experience of struggling to play well when timing is off--and striving to win.

In the Zone; the Phenomenology

> If you can fill the unforgiving minute
> With sixty seconds' worth of distance run,
> Yours is the Earth and everything that's in it.
>
> Rudyard Kipling, If

The champions agree that a phenomenon such as the "zone" exists. They don't all give it the same name, but their descriptions of the experience, generally, are synonymous. Uniformly, they concur that the experience is pleasant and always welcome.

In Brett's words, when he was in the zone:

> Everything seemed just to fit. Everything was almost in slow motion. I felt I had plenty of time. Whether my footwork was that good, that it made everything look so much easier and my anticipation was so keen that I hardly missed a ball . . . I'd just go--*WHACK*--and it would go cross court and I'd get it on the line and I wouldn't think anything about it. I just felt that that was all right. . . . You focus in on how you're playing; your concentration is there, you just feel that you're middling the ball, meaning that you're really striking the ball right in the center of the racquet. All the leg work you've done over the years is suddenly paying off because your footwork is so good; you're strong--everything just seems to flow. There is no jerkiness to anything you've done. . . . That sort of instinct just comes naturally because you're not thinking--I think that's the subconscious mind that takes over when you're playing well. . . . And I think that's the one thing that your

subconscious mind says--you see the flow of it; the mechanics are done.

Describing a less favorable situation of playing an opponent who is in the zone, Brett said:

> You play him . . . and he seems to nullify everything that you're doing. He just either splits and has a magical sense of where to be or what [to do] with the shot, or where he thinks the return is going to be. And I certainly think that [characterizes] being in the zone, as well.

Andrew offered this description of his effortless moments of being in the zone:

> When I was playing my best, it was just--I felt like I could get to the ball--and once I got to the ball, I could do something with it. Part of it is moving well. Other times you feel like you're seeing the ball well. It's either that or else you're anticipating well. So, it's--you're always there; you're on top of wherever the guy is hitting the ball--and not having to grope for balls, because you're always there. . . .
>
> You're not thinking about technique, you're just thinking about where you're going to hit the ball, and you're not having to put an effort into getting yourself moving and getting to the ball--I would be gliding around, not having to force myself to get to the ball; I'd be able to jump on the ball very quickly. . . .
>
> And when you get in the zone like that you really--things are going instinctively; you're not having to motivate yourself because you're playing great . . . you're timing the ball well, and you're hitting the ball hard without much effort *because* [italics added] you're timing it well; you're able to hit the shots that you want to hit . . . I think when you first get in that zone, the biggest concern is, "I can't stay in there." And once you get there a few times, then you say, "Geez," (laughing) sometimes you start thinking to yourself: "What is this? How am I here? How can I get back here again?" You may not be in that zone more than a couple of times

in your career--at really the very, very best, so it's--you want to try to figure out what you're feeling when you're playing that well. But if you get too analytical, then it goes away (laughing). So I think you have to believe in yourself when you're playing and not get too analytical about it. Kind of enjoy the moment.

About the zone, Matt offered his perspective:

You've got a really clear picture of what you want to do, and that's number one, really. And, number two, you get so focused and zoned in on what you're trying to do, you can block everything out--the crowd, your opponent . . . your senses seem to be sharper--you hear the ball better, you see the ball better . . . you can see the seams of the ball . . . your awareness, when you're playing well, seems to be heightened--and your concentration seems to be there as well without wandering around and losing focus. It seems to be easy--everything. There is no labor; there is no forced effort. You're not thinking too much--you can't have much conscious thought, really . . . you're almost playing more on instinct, really.

John succinctly paraphrased the collected thoughts of the champions about the zone when he said:

> The zone is just a matter of pure confidence where you don't think you can do anything wrong . . . it doesn't seem like you're expending any energy; everything is effortless, and you're not struggling and the ball is going where you want it to go. . . . And that, when you're in there, today is your day . . . and you just want to keep it going because it's a good feeling and it doesn't happen [often]. With the best players it happens more, but it doesn't happen all the time.

Regarding the passage of time and the ease of the experience, John added:

> I guess, if anything, that it slowed down. You just felt that you had all the time in the world to hit a ball or you just had the time; you

weren't even thinking about it--everything was so effortless . . . when you're in that zone, it's just so easy. I mean you have no worries, the Aussies say--"no worries."

Coping and Triumphing when not in the Zone

Andrew, describing his experience of not playing well (or even near the zone), says:

> If you're not playing your best, which is most of the time, you're always looking at how you *can* [italics added] play your best. . . . So, you are thinking a little about technique at that point. . . . Then, at other times, you're playing tricks with yourself . . . your timing goes off because you've been trying too hard. . . . I don't know if every player has gone through this, but certainly I have gone through phases where you want it so badly, you try so hard that you just get totally uncoordinated.

"Is it a tightness that occurs, when you try too hard?" asked the interviewer.

> Well, yeah. If you're trying too hard, then you're thinking too much about it, how to hit it--you know, that whole concept of paralysis by analysis--to try to do it a certain way, and there is no way you can time the ball that way. Then you have to start playing games with yourself--saying, "Well, it doesn't really matter--it's not that important," or, "I'm just going for the shot, and I'm not going to worry about the result." These things are easy to say, but they're difficult to do. . . . So, you have to kind of relax, let your body work, and all of a sudden the timing comes back and you hit the ball harder and more accurately, and more effectively without trying as hard.

When asked how he coped with the situation when he wasn't playing his best, Steven said:

I think that by plugging along, and the ability to control your emotions, and not losing it, and staying in the present, and not getting depressed when you're playing like crap. And the other thing is that I always had confidence in myself . . . I also really believed that no matter how badly you're playing, there's always a play in the match where you have the opportunity to . . . turn things around--and maybe it was just one point. But I really think that if you look back on a match, there's one opportunity that you have--no matter how badly you're playing, to claw back into the match . . . so, if I could just claw and hang with the guy, I had confidence in myself to win the match. I won a lot of matches when I was playing like crap, so many--I mean I would go four matches playing horribly and then I think that's what makes you play well. You have to get by from those lousy matches . . . to play well.

Asked how he triumphs when he's not playing in the zone, Edwin said:

Well, that's just hard work. That's like I say about Newcombe. Newcombe won more times and I did too, for that matter . . . but Newcombe won more times when he wasn't close to the zone than anyone I ever saw--just with his [mind], his tactical grind--and of course his serve. . . . There were a lot of matches that Newcombe didn't look like he was going to win, that he won. And a lot of matches that Newcombe didn't play well, that he'd win. He'd find a way to win--to make a shot on the right point; he'd find a way to lob at the right time.

And Kevin added:

Well . . . when you're going through it, you know that you're in the zone. [When] you're not in the zone, you don't think about it. And you just try to stay focused on what you're doing . . . if it's something that you have been wanting to do throughout the match--you're still focusing on that, and it's working or it's not working. . . . So, you're always focused on what your immediate goal or strategy is--rather than--this is a good day or a bad day. Because you can win matches even when you're not playing well--

just by hanging around; eventually you end up being in the right place at the right time.

Asked how he found a way to win when he wasn't in the zone, Peter said:

> You play hard and hope that your worst is good enough to win. You hope your down side level is strong enough to win by competing . . . and thinking . . . that's what I tell all my kids [students]--I say, "The days that you go out and play just absolutely perfectly are going to be very few"--that you are going to say, "I saw the ball like a balloon and couldn't miss." It's going to be more of it being there, and you're down there and you can't find the ball. But the mark of a great player or a champion is that they find a way to win when they're not playing well--and they do, and that's by thinking and competing--and not giving up.

In sum, the players acknowledged the rarity of being graced by the zone--and the joy, effortlessness and heightened sensation of the experience.

Sport Psychology

> The significant problems we face cannot be solved by the same level of thinking that created them.
>
> Albert Einstein

Much more appropriate would be to prepare myself psychologically. I would ask advice of sports psychologists, Zen masters, motivators, gurus, people who had been enormously successful in other fields, corporate CEO's, general managers, coaches, topflight athletes, and, pumped up with what they had been able to offer, I would arrive in Washington (with a new pair of socks) and try again. (Plimpton, 1995, p. 25)

Most, but not all of the athletes in the study subscribed to sport psychology, a profession which has emerged after the retirement of some of the champions who were interviewed. Matt, who had contracted the services of a sport psychologist, said:

> In 1982, sport psychologists were not exactly in vogue; it's almost like you didn't want to admit knowing one--because you had some kind of mental problem . . . at that point, I was willing to try anything, so I said, "Why not? If I don't like what he's saying, I'll just let it go out the other ear" . . . so, right after Jim and I worked [together] . . . I was playing unbelievably well, and I was playing with all this high energy and intensity and being positive, and I was using my visualization skills--and I just felt like a new player.

Before Matt's revitalized game was on record, he'd walk into the locker room, and hear from his peer professionals:

> "Hey, Matt, how's your shrink doing today? Have you been laying on the couch yet today?" . . . They were giving me a good-natured razzing about the sport psychology [business] because nobody had done it--at least admitted doing it. And, after the [U.S.] Open, the guys were going, "Hey, Matt, what's that guy's name again--do you have his number?" . . . all of a sudden, after the Open, they said, "Gee, look at this guy, the new player" . . . I think the mental aspect of the game is often ignored compared to the physical and natural tennis aspects of the game. . . . It was the first time I had ever worked with somebody specifically on the mental game--it was the first time anyone had ever put it in easy to understand athlete's terminology, without trying to use big fancy words or anything, and it was very applicable to tennis; it really applied to tennis; it was clear that Jim [Loehr] really loved tennis, and that was his first sport.

About the psychology of tennis, Michael said about watching film "cuts" of two very good players:

You watch two champions playing . . . condensed, three shots of Sampras, three shots of Bill Scanlon, for example--or you saw two great players, Vilas playing Borg in a match that Borg won very easily in the French championships; you could not tell who was going to win the match by those cuts. And so, it tells you that when people say that it's half mental, well, it tells you that at that level it may be 90% mental--95%. Well, what is it? It's not the strokes getting better. The guys hit different sorts of strokes. It's all mental.

And, about sport psychology, Michael said:

Well, I think you had better measure the person before you figure out the priority it may have with him. A kid twelve years old may have no understanding. A man fifty years old may have no idea what you're talking about; they may be so good instinctively that fiddling with their head may just confuse them so the lights won't ever go on.

About the role of those who work with player's psychologies, Michael went on to say:

> It's all about morale building and being a cheer leader. And Jim Loehr is an unbelievably gifted cheer leader, as is Bolletieri--different types. One's dealing *with* [italics added] your brain and one is dealing *through* [italics added] your brain. Bolletieri is never teaching you strokes. It's all about getting you motivated. And the same thing with Vic Braden; it's all about motivation. He would tease you--use humor--and Bolletieri does it with a sort of tough marine--everybody's in a military unit, and Loehr is more gentle. He's working very subtly with your brain. But it all comes down to that they're all cheer leaders with different educational degrees. And I believe it absolutely--that's incredibly important.

Asked if and how sport psychology might be useful to aspiring players, Michael said:

> Psychology--I'm not sure how many people listen to the whole range of psychologies that are available. There are all sorts that

are available. Tim Gallwey--there's an awful lot in what he said; he didn't give much of a roadmap as to how to get there, but some of the stuff was terrific. One of the things he said was if you're down match point or set point, the guy is serving to you and he misses his first serve, the conventional feeling you have is--"God, I hope he double-faults." And his theory was *absolutely not!* [italics added]. You should hope that he puts in this incredibly lucky second serve that clips the line. Because if you're waiting for that serve, then you're apt to concentrate really well and not say, "Oh shit" when he doesn't double fault. So, in other words, he wasn't hoping that the guy wouldn't double fault really, but he was trying to get your brain attuned to, "Well, don't count on his falling down; you have to do it on your own." It made a lot of sense.

In basketball, for example, you want to have this mentality where when the game gets close, *you want* [italics added] the ball. Now in tennis, I understand that completely. When I play in my small world now, when it gets close, I want the ball still. I don't want my partner to have the ball; I want the ball. And I can see that other people don't want to have the ball, and I have been in that situation.

Regarding his perspective about the mental dimension in the game of tennis, Paul said:

> I mean the mental aspect of tennis is so massively important at this point in the game . . . everything is important. But I think you can have all the talent in the world, but if you don't have the brains to play tennis, you can't become a champion. And that's why you have guys like Jim Loehr. I wish I had met Jim Loehr when I was ten. I would have been a [very] different person, I think. I would have been a better tennis player.
>
> And I think that you can do that same thing in terms of sport. Maybe life is a lot more important than sport--but that's about the only analogy I can think of. But if you can retrain a spirited horse by dousing the fire a little bit, but not kill the lion in it, I think that that would help most players.
>
> If Jim Loehr has his way, and he can get to every professional player out there, you would have a tremendous quality of tennis; you would have people who behave impeccably; you

> would be able to sit in the stands and see two players go at it and you could see the ebb and flow of the match--this guy's up, this guy's down; they both play great tennis--they're head to head . . . people are going, "Christ, throw your racquet! Bash the umpire!" (laughing).

Steven, a proponent of sport psychology, was amazed to discover that some of the techniques and practices recommended by sport psychologists were approaches he had learned by himself--and had successfully applied to his game, without conferring with anyone. He said:

> I just came up with it--it's the weirdest thing . . . I came up with so many psychological things without ever being told this stuff and then I went back and I started reading psychology books when I went to school, and "*I did that*! [italics added]--this acting--*I did this*! [italics added]-- rituals--*I did that*! [italics added]--self-imaging." I did this kind of self-imaging, so I really came up with a lot of the stuff on my own. I don't know how I thought of doing this, but I think that's somewhat being obsessed about what you are doing . . . constantly thinking of things that could improve yourself and not waiting for somebody to tell you--so I figured the [stuff] out myself . . . it's kind of interesting; I thought of a lot of that stuff by myself.

When asked about his formal experience with a sport psychologist, Steven said:

> I think going to a sport psychologist was pretty helpful. I think it was just amazing that there was somebody you could talk to and there were no repercussions. You could just talk and I could open up to . . . she was just nice and easy to talk to.

Edwin is not necessarily an advocate of sport psychologists--yet believes strongly in the psychology of sport and the capacity of *someone* [italics added] in an athlete's life to communicate and transfer important

aspects of competing. In describing his position, he talked about the famous Australian coach, the late Harry Hopman, who had a tremendous impact upon him:

> He'd leave all these new-fangled psychologists, psychiatrists--he'd leave them all in the dust. . . . I didn't say he'd have no place for them--I said they couldn't hold a candle to him. Some people need them. They're helpful in some cases, but as far as tennis is concerned, there is no one even close [to him]. I've never seen one.

Edwin said that Hopman had the capacity to motivate players, just as many sport psychologists claim to be able to do. But, additionally . . .

> He knew about tennis. I mean he knew how to train you. He knew that Stolle couldn't run the same amount as Emerson; he knew how he could talk to Stolle, how he could talk to Newcombe, how he could talk to me, how he could talk to Roche--how he could talk to Emerson. He had his hiccups with everybody . . . everyone. It's no coincidence that when Hopman left Australia and came over to America, that Alexander and Dent and guys that came up right after Hopman left, probably didn't realize their potential. And guys he was working with here in America--McEnroe and Gerulaitis, etc., did. So, I don't think that's any coincidence.

In Edwin's response, he allowed that technique, fitness, and psychological skills are all essential ingredients to a great player:

> Hopman used to make a point to us that you could be the fittest person in the world, but if you can't make a backhand return at thirty-forty, it's not going to help you. So, it's kind of a sport psychology, a little bit, in my opinion, like that. You [can] talk all you want . . . and you can have the guy with you . . . and he can make you feel better about yourself, and . . . I've seen guys that are "also-rans" . . . and when they hire these world famous sport psychologists, they're still also-rans. And, they're also-rans

because they didn't correct their weakness on their forehand volley--and they didn't correct the weakness on their forehand. . . . On the tour, the guys pounded it to the death . . . so, I think there's a place for it. I have listened to all the tapes and I've read most of the books and I've found some good stuff in just about all of it.

Edwin described the Sunday morning lectures he gave at John Newcombe's Tennis Ranch:

I used to say to all these people--whether they be adults or whether they be kids . . . "Try to pick out one of the things that really impresses you--if you try to get it all, you can forget it--you can just, no way [you can remember it all]." And . . . three days later . . . in challenge matches . . . that was the toughest time for the kids when [they] would play challenge matches . . . so that was the day everyone used to get nuts--all the nerves used to get fried; sometimes we'd go down on the courts when someone was misbehaving and we'd say, "Are you thinking of any specific point that you saw in the tape last Sunday?" And [in] just about every case--they wouldn't have any clue. But, every now and again, you'd find some kid who would say, "You know, I've just decided to focus in on . . . just watching the ball" . . . or, "I decided to focus in on my rhythm--not rushing so much--I've decided to slow down." And some of it didn't work, but at least some kids were taking some notice of it, or were thinking about it a little bit.

When Ken was asked about psychological obstacles, and tools he learned for hurdling them, he said:

The biggest fight I had in my career was trying to . . . to play relaxed--like I struggled to play relaxed . . . so my fight was to go out on the court and be relaxed--at least loose enough to play, rather than be uptight the whole time.

The interviewer asked: "What ways of relaxing? Were there certain techniques you . . . ?"

Ken responded:

Yes, the one--I mean it's a brief little spell when I played decent--it was in '87 . . . and I talked to Jim Loehr, and he has all these concentration things . . . and none of that stuff really worked for me, but then he said, "What did you do when you played well?" And I said, "I used to joke around with the crowd; I used to just hang out and have a good time." He said, "You've got to do that again; go ahead and start joking around with the crowd--even if you don't feel like it--start doing it." Because I quit doing all that stuff--joking around with the crowd; I was just so focused on each point--so I started trying to joke around with the crowd, and the next tournament . . . I beat Nystrom, who was ranked in the top ten at that time--and then Krickstein, Noah and Wilander . . . and then the next tournament, I flew over to Monte Carlo and I beat Becker and Krickstein again, Kent Carlson, who was top ten at that time. I lost in the finals to Wilander. So, I had an unbelievable stretch with that attitude. Then I made the fourth round in the French [Open] and lost to Becker in four sets. And then I just sort of couldn't do it any more; it worked for that short period of time.

Charles could not be characterized as someone who sings the praises of sport psychology:

> Well, I probably wasn't tough enough on the court. But all these buzzwords of toughness and psychology and all that stuff that's coming to the sport in the last ten years, we never-ever believed in that; I still don't believe in much of it . . . yeah, I don't believe in that much at all. My point there is, well, if it works now with the guys, then how come somebody like Laver or Rosewall--I'm just naming Australians now because they're the guys I know--how come Laver won two grand slams--if he had any help from a sport psychologist, would he have won three? I don't think so.

Remembering that Charles talked about the psychological prowess of John Newcombe earlier in the interview, the researcher asked: "So . . . the things that you mentioned about Newcombe--it sounds like you might believe that the great champions do *all* [italics added] that sport

psychology teaches, like visualization--without ever being taught to do so."

Charles responded:

> Exactly . . . I think some of the guys today do a good job, but most of it is to get into the mind of the player that they *can* [italics added] do it--and, whatever it is--the power of positive thinking. And then, if you have that, then you win a couple of matches, and you get a little bit of confidence, and away you go.

Charles acknowledged that sport psychology has sometimes had a positive role in tennis:

> I think it's a great thing for some kids today--sport psychology--and again the reason I don't [generally] believe in it is because when we were playing, it was not there--and I'm a conservative sort of guy, have been in pretty much everything I've done, and I just try to figure those things out for myself. But I also know of cases where sport psychology has helped some guys to settle down.

One of the champions was an ardent disbeliever in the effectiveness of sport psychology. Serge said:

> I wish I could talk with a little more authority [about that]; I have none. I don't believe in it because I'm old fashioned. I'm the worst guy you can ask that question to. I don't believe in it. What is sport psychology for you? What does it do for you? Does it win tennis matches? What's it going to do for you?

When asked about a player who had spoken about the effectiveness of sport psychology in the latter part of his career, Serge responded without hesitation:

> I know the guy; he's talking to a guy [a sport psychologist] because of the age group we know about. Now he's leaning on somebody, and somebody is leaning on him. That's what it amounts to.

Simon had his own rendition about sport psychology. He said that in his era:

> It was unknown, completely unknown. I knew about psychology, and that meant crazy people banging their heads against the wall. One Flew Over the Cuckoo's Nest; it had no relevance to tennis as we know it now. Some of the conclusions had roots in sport psychology--ways to think about important points, ways to get your mind off the importance of winning and ways to avoid choking; I guess that qualifies as sport psychology. But you never heard anyone telling you how to do it.
>
> I would try to concentrate on a specific thing, something as simple as watching the ball hitting the racquet, or hitting the ball in a simple spot--*anything* [italics added] that would unclutter the mind--avoid other things. Or, alternatively, trying to put it in the perspective of life. So, I would say, "Listen, people are in a lot more serious position than you are." Or, "You've done well, it doesn't matter how you do in this match."
>
> Because it's true--I mean tennis is so small; we played a senior match yesterday, and I wanted desperately to win, because it's so much fun; I mean it's more fun to win than to lose . . . but I truly enjoyed every minute of it. I was disappointed when I lost for ten minutes, and then everything was fine--put in perspective again, but the perspective that--like, you think when you play that people really care--and for that fleeting moment they do--but in the whole scheme of things, it's so unimportant. It doesn't change your desperate need and will to win at the time that you are doing it. You're out there, so why not? So, it was great. It's lovely to get out there and still do it . . . but it's important to keep the thing in perspective--and it does help you, too. It does take the pressure off. . . . Anything to take the pressure off. Some of those were little keys that I would use, but that was toward the end of my career.

Simon then talked about other champions, and other effective ways of reducing the pressure:

> And then [other] champions talk like that, too. And I think a lot of them truly feel it. I mean, they see it in the greater scheme of things; for those that do, I think they're better off. Michael Chang, his thing is the Lord. That takes a lot of pressure off him, too. So, this is another avenue that I think has been very successful for him. . . . It takes [away] the immediate need to win the next point--it's not something that's critical for him--and if he loses it, it's the Lord's will. How good is that at taking the pressure off? So, I have no argument with his feeling these things; it could help him.

Claudio spoke about his experience with sport psychology, and his appraisal of its development:

> I think it does fit. Like everything else, I think that sport psychology doesn't help you if you don't know how to serve or how to hit the ball. So, to me, the basics of a good tennis player are being a good solid ball striker and, together with that, your physical training will help you; your sport psychology will help you, and everything will help you to put your own puzzle together.
>
> When I was working with Jim [Loehr]--I used to talk to him pretty often, and I used to tell Jim when I first started working with him--I used to get very tense; that doesn't allow you to think clearly and to make the right decisions. And I used to tell him, "Jim, you have a big point. . . . I think when you play and you are afraid of losing, then whatever happens, you go ahead and be afraid, you'll end up the loser." . . . Basically what I do, once again, the experience that I had, the things that I felt when I was on the court, the fears that I had and how I dealt with it--[there are] things that helped me get to the point where I could control or understand those feelings better and better.

Allowing for other perspectives, and expressing an attitude that validates individualized approaches, Claudio remembers John McEnroe:

> And McEnroe didn't say--he didn't necessarily motivate himself. He didn't say, "Come on, John, you can do this," (both laughing) or whatever. You know what I'm saying. I think sport psychology is

good; I think physical training is good; everything is good. But the most important thing is tennis. We shouldn't forget about that. And I think that's what we forget sometimes.

Visualization

The majority of the athletes in this study claimed that visualizing their desired form and a victorious outcome was an efficacious tool in preparing for an upcoming match.

Steven talked about visualization with great familiarity:

> Before every match I did the same thing--every match that I played on the tour, I visualized . . . throughout my career. I started doing it in the second year of college and I did it before every single match throughout my career as a player.

Some of the champions indicated that they would mentally review previous matches with the opponent they were about to face, re-hearse how they intended to play the first several games of the match, imaging what their opponent was likely to do, and their ideal response to those strategies and tactics. Paul said:

> I always try to construct my first game. [For example] . . . I can reconstruct how I play Borg in the first game. I know what he plays like--I know where his returns go most of the time--just close your eyes and figure the first game out--and play it a few different ways.

Most champions said that they were most successful when they employed their imaging approximately an hour before the match. Asked by the researcher when he sets aside time for his visualization, Paul added:

Before [the match]. You can think of it before you go to sleep, but you can't really do that . . . you've got to go to sleep because you start getting keyed up. I'd rather do it a half an hour before my matches--just quietly sit and think about what I was going to do, and what he does--most likely will do. And that way, you start to focus immediately when you walk on the court. It's not like you walk out there and--"Okay, I'm just going to serve in the box." You really have to think about it a bit before. And that seems to work on the focus.

Some athletes pictured playing with an opponent whom they had previously beaten:

[When] you needed some other help to get through some of those points, I would conjure up in my mind that I was playing against my friend, Johnny Liberty, whom I practiced with when I came over [to the United States] in the 1970's . . . the guy that I brought over with me. I could always beat him--but barely, so we had great matches. But when the important point came, he would fold and I'd win. So, when I'd get out in a match, I would say "this is Johnny Liberty," and I would pretend that that was happening. (Simon 1997)

Conversely, Kevin said:

Imaging . . . visualizing--I never did that. That was one of the things that the sport psychologist talked to me about--sitting there before you got out and visualizing yourself winning the match, but I had a hard time doing that and some of the other things we were talking about.

Self-Talk

The path was worn and slippery. My foot slipped from under me, knocking the other out of the way, Lincoln said, after losing a Senate race. But I recovered and said to myself, "It's a slip and not a fall."

Abraham Lincoln

The above quote from a former American president is both an example of self-talk, and an example of a "re-frame," a psychotherapeutic treatment strategy of the twentieth century. What follows is the success of self-prophesizing that proponents of self-talk espouse:

> I am the greatest. I said that even before I knew I was. Don't tell me I can't do something. Don't tell me it's impossible. Don't tell me I'm not the greatest. I'm the double greatest. (Ali, M. cited in Ferguson, 1990, p. 4-23)

Self-talk was an area of the study that received some disconcordant responses. There was not agreement among the athletes whether self-talk was necessarily a vocal display--or whether non-audible talk (within oneself) qualified as self-talk. When the interviewer was asked its meaning, he responded that the talk *could* be vocal, and that it could also reflect what one was saying to oneself--silently. Matt believes in its value:

> Most of the coaching that I got in all sport--a lot of the coaching was negative feedback; you always got kind of programmed--"Well, you did this wrong; and now you did this wrong. Instead of passing the ball to this guy, you should have passed it there. Your elbow is out on your backhand; put your elbow in; turn your shoulder"--so, you're always programmed in terms of negative feedback--and tennis players tend to be perfectionists anyway, so a lot of times you're your own worst enemy. So I had to learn that positive self-talk, and at first I thought it was kind of hoaky because it's like, "Okay, it's nice to be positive, but things are not going well, why should I be positive?" . . . Jim [Loehr] expressed that, "If you are positive all the time, you give yourself the best chance." There is no guarantee that you're going to turn a match around by being Mr. Positive, but it certainly can't hurt you--and when you're negative in your thinking, that obviously creeps over into your play. If you try to be positive in your thinking, it kind of translates into being more positive when you're playing, and doing some positive things on the court.

On the theme of self-talk, Claudio said:

I think it's a little more important that you understand what you're saying than trying to tell yourself things that you don't even understand. . . . I believe that if you just say--"Oh, come on!"--I think that's good if you're trying to lift yourself up or something. But I think it's more important, going back to the other theme, that you understand that you can, that you can tell yourself whatever you like--if you don't understand what you're telling yourself, it won't do any good. So, I don't necessarily think that you have to say it, to hear it. I think you can think it and it's the same thing. I used to talk to myself, but I didn't let anybody know what I was talking about. If I made the wrong decision, I knew that I made the wrong decision; if I wanted to do something, I knew what I wanted to do. So, it's not like I had to say it aloud--to know . . . actually, I know guys who go, "Come on!" in the first part of the match . . . I think it's important to get emotional about things important--to kind of know when that can help you. If I play a guy and in the first game, he goes, "Come on," all he's telling me is that he's insecure with the outcome of the match. So, it's important--not to pick your spots--but just to know when you need that extra lift or that extra motivation to do it. Instead of just doing it at random. I can name you a bunch of guys--great champions, who never said a word when they were playing.

Watch your thoughts; they become words.
Watch your words; they become actions.
Watch your actions; they become habits.
Watch your habits; they become character.
Watch your character; it becomes your destiny.

(Outlaw, Sarasota Herald-Tribune)

CHAPTER 5
CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

When we unearth how champions define "champion," and what the inherent constellation of qualities and traits of championship achievement are, we understand something of the athlete's relation to himself. And we have a broadbrush description of his personal philosophy about himself, the way he perceives others, and life itself.

It is certain that the definitions champions have offered about what constitutes a champion are diverse, ranging from genetic epistemologies--to titles and trophies won--to behavioral conduct on and off the tennis court--and to the degree to which the competitor has been a role model and given back to the game. The author concludes that the definitions offered by the champions are as disparate as the participants themselves, and that the range does not in any way indicate a need to consolidate a fabricated meaning.

Champions; Developmental Progressions

Becoming a tennis champion is a long, arduous process. There is the all-essential development of the love of the game, the commitment and attainment of smooth biomechanical stroke production, fitness training, competitive experience, contending with and rehabilitating injuries, psychological recovery from disappointment, dealing effectively with

success, the media, and the expectations heaped upon the athlete from self, family and others.

The participants almost without exception come from families whose parents are described as supportive and caring. They are characterized as concerned about the tennis development of their child, but not intrusively so. The parents themselves are depicted as hard workers who instilled the belief in their children that they would not progress without working and persevering.

When it was a parent who introduced the champion to the sport of tennis, the introduction was generally a non-pressured situation.
One of the participants in the study talked about the dual relationship of being both a parent and a coach to his child; he described it as a delicate balance, not an impossible one, but he alluded that it rarely results in positive conclusion for either person, with some notable exceptions. While there are other coaches in the world, there is only one set of parents, and the preservation of that relationship was valued.

Often the parents and the siblings of the participants were also athletically inclined, and many engaged in sporting competitions.

Many of the champions had very positive relationships both with coaches and with mentors, some of whom served nearly as surrogate parents for the athletic dimension of the champions' life.

Most of the champions in this study had modest conceptualizations about their capacities to achieve in the competitive world of professional tennis, and their achievements often surprised--and motivated them to higher aspirations and accomplishments. Matt said:

> I remember vividly when Mark and I lost the finals at Wimbledon in '83 and when we got our runner-up medals, up in the Royal Box from the Duke and Duchess of Kent, I remember smiling at each other, and even though we lost, we really won--because two small-town guys from the mid-west that came from our background, shouldn't be in the Royal Box at Wimbledon--and we were . . . we had overcome a lot.

Many of the champions spoke of self-doubt, and a defining moment early in their careers when they realized that they belonged in the prestigious pool of players with whom they were competing. Kevin spoke of *nearly* beating Bjorn Borg in a grand slam tournament, and realizing shortly after his loss that what stood between him and victory was the lack of belief that he was capable and deserving of beating someone by the name of Bjorn Borg. The experience was ultimately an affirmation of his skills and *his* recognition that he was a world class player, which followed the initial disappointment.

Most of the champions spoke of being pleased when they came *close* to beating a highly ranked player early in their careers--and being promptly chided by a colleague or coach for their satisfaction with a "good score" or near-win. Without exception, the "chiding" was expressed as having a role in their development of a fortified belief in their own capabilities and confidence. It is as though, after the "close" match and subsequent chiding, they progressed from thinking they were

unproven tennis professionals--to *knowing* they were authentic contenders, and deserved to win. The experience served to elevate the set of expectations they carried into matches. Hoping vaguely to win and wanting to have a "good score"--and *expecting* to win and being willing to do everything within the rules to do so, are palpably different phenomenological experiences.

The belief that one *is* the best, is *becoming* the best, or is *destined to become* the best is an attitude that has been assumed by *some* aspiring champions. That attitude is often perceived by others as arrogance, may be experienced by the athlete as sheer--or pseudo confidence, and is sometimes reported to reflect both a show of confidence--and a shield masking social insecurities.

Confidence is described as an essential element in a champion's development, a potent and dynamic force, rather than a static one. It can fluctuate in the process of a match and while victory can inflate it, a disappointing defeat can reduce it to distant memory. Champions often talked about the first few rounds of a tournament as the most important in establishing confidence. Many felt that by the time they had gained entrance into the quarter-finals, they were playing well, and confidently.

A phenomenon which was reported by several of the athletes is described here as a transmission of confidence. Exemplifying this experience is the story of Earl who was supremely confident, although initially it was gained through his coach's effusive confidence in him. Earl reported Tom Stow's delivery of his appraisal of him:

> Earl, I'm convinced you're the best player in the world. Now you go out and prove that I'm right. Go out and annihilate everyone. Dominate them. Don't let them win a game if you can help it, but try to beat them as quickly as you can.

He reported that his initial experience of confidence was as if on loan from Tom Stow. Nevertheless, borrowed or self-generated, it became a confidence of his own.

Positive thinking was a commonly mentioned theme in the study. Many of the champions indicated that they had been counseled by coaches and others to think positively on the court. Champions strive to find that better chance of winning, and many conceptualize positive thinking as a way of optimizing their chances.

When the champions in this study spoke about their athletic development, they stressed the necessity of loving the sport and having fun in the early stages--and throughout a career in professional tennis. Many of them indicated that choosing a tennis career eliminated other options (one athlete mentioned that he was busy winning a Wimbledon doubles title when his friends were at the high school prom). But the champions also said that their felt experience was of choosing a priority--rather than making a sacrifice. However, they added that without the love of the sport, their choices would have been mis-directed.

The celebrated tennis champions who participated in this study have triumphed, but not in the absence of hard work, psychological stressors of

expections from themselves and others to always be victorious, disappointment from loss, emotional despair from injury, and disgust from succumbing to psychological pressures on the court. They did learn to overcome those obstacles through perseverance and guidance from coaches, and more rarely, colleagues and siblings. All of the champions had a strong work ethic. Many of them had dreams and goals that would not vanish. Perseverance was a strong personal resource, which helped make goals achievable.

The Mark of a Champion

> I imagine there are probably three . . . ingredients that are important in the make-up of a champion. You have to have all three. I think certainly you have to have the love of the sport to make it happen. I think the desire and the drive to play the matches and the amount of practice that's needed--the drills that are required to make it happen. Then I think it's the playing the best tennis under pressure. If you've got these three ingredients and there are always a combination of words that say there is a lot more to it than that, but those three ideas are the main three. . . . Along with the three things I talked about, I think you have to have the inborn talent, to be able to do the other three. You have to have all those ingredients to make it fly, I think. (Brett 1997)

In accordance with the data from this study, he who wins is not necessarily the one with the greatest speed, the best serve, the fittest body or the brightest mind. Rather, it is he who possesses *some* of all those qualities--and has the resourcefulness and perseverance to apply all four into an all-out effort to win. Peter summed up the aggregate views of most champions when he said:

> The mark of a great player or a champion is that they find a way to win when they're not playing well--and they do, and that's by thinking and competing--and not giving up.

One of the distinctions of a champion in terms of his on court prowess, is his ability to win despite not playing in the zone, or even near his best capabilities.

Dreams and Identity

Earl talked about frequently taking a ferry boat to have his racquet strung--and imagining he was going to England to play Wimbledon. His image matched his future itinerary.

Nearly all the champions interviewed told stories of their boyhood dreams. They were most often concocted while hitting a ball against a garage wall while they played a deciding point between their nation and the reigning holder of the Davis Cup. While Simon banged balls against his family's garage door, he imagined that he *was* Eric Sturgess, his nation's leading player. He said: "But it *is* [italics added] where I was headed because I was Eric Sturgess for more than a decade."

Some of the champions talked about their athletic aspirations as reflecting their need to establish an identity that was separate from their siblings.

Potential Seeking

Clearly, the most common denominator in champions' definitions of "champion" is the element of potential seeking and reaching to the

greatest heights possible for that human being. Inevitably, that definition captures the truism that there are different levels of skill acquisition possible for every person. The construct is reminiscent of the late Abraham Maslow's notion of self-actualization: "Maslow loosely defined self-actualization as the 'full use and exploitation of talents, capacities, potentialities, etc.' " (1970, p. 150, cited in Fadiman and Frager, 1976). The participants in this study did not generally regard competitors who had vast unrealized talent as champions.

Competitive and Priority Driven

The champions interviewed are extremely competitive people who are seekers of the full attainment of their potential. They will work hard, with disciplined approaches to do everything they can to reach their goals. They *hate* to lose.

Many of the champions who participated in this study indicated that they have been competitive for as long as they can remember--and for as long as their parents can remember.

Generally, the champions' priorities were clear and unwavering. For example, whenever Earl was invited to participate in an activity, he asked himself the question: "Is it going to be good for my tennis?" His response (like other athletes in this study) to the invitation was based on his answer to this self-inquiry. Many of them have single-mindedly set their sights at a very early age, in response to a love for their sport. With luck, as Peter said, they will remain injury-free throughout the fortnight of a grand slam tennis tournament. And that will lend to the mere

possibility of becoming a champion--a champion being a combination of factors which intersect in time and space, and become manifest at just the right moment.

Inventive, Creative

If winning is a necessity, which is the felt experience of most of the participants, then they will go to great lengths to find a way to win. At times, that means hitting a shot they never hit before, using a strategy or tactic they never applied before, or devising some method to win which had never occurred to them in the past.

In this context, Andrew remembers watching Bjorn Borg hit a shot (the type of which he'd never seen him hit before) when he needed a miraculous turn-around in a match wherein victory seemed neither imminent--nor possible:

> A champion will sometimes create a shot that he never hit before--and Borg . . . he hit a topspin, forehand volley, which I've never seen him hit before or since. . . . But he manufactured a shot that was needed in that particular situation, and he made it. So, you know, it's another one of those attributes of great players, that they can hit--they can even create shots in big situations that they may never have done before--and it may be out of panic . . . it's the right shot to hit and they produce it--I don't know how that happens.

Competitive Abilities

Mental Toughness

Mental toughness is a fluid composite of effective thinking, self-talk, self-complexity and visualization. This constellation of skills results in enhanced performance in sport competition--and in life.

Emergent from the interviews is the theme that technical and biomechanical efficiency, physical fitness--and psychological adaptability are all tied to mental toughness.

Problem Solving and Successful Adaptation

Champions make a habit of finding a way to win, whether it means finding a flaw in their opponents' arsenal of weapons, or finding a way to lift their own level of play. What that ability reflects is a phenomenal capability to adapt to the demands of the situation, an effective response to the goal of winning. These men are adaptive human beings and effective problem-solvers.

In this context, Brett said:

> I know that I have a game that is competitive--that could win. . . . "What am I doing wrong? Am I not concentrating? Are there too many things in my mind?" . . . If you can keep it within the court and start thinking just purely of your opponent and what it might take to beat him. What's he lapping up that you're doing? . . . "Can I change my game? What can you do about it?"

A synthesis of the data reflects that when these competitors have been faced with challenges, they get engaged in the process of solving that

challenge, whether it means overcoming adversity, or simply devising a solution to a problem in a match situation.

Present Focus

It is unequivocally clear that the champions in this study believe that their finest competitive moments are facilitated by being present-focused, as opposed to thinking about the last shot, some future shot (or score), some past defeat, or some impending or future victory. Arguably, having and maintaining a present focus is one of the most difficult psychological challenges the game of tennis presents. Most of the champions in the study used simple self-talk phrases to focus on the moment, or a repetitious visual cue such as watching the ball. Several of the athletes were proponents of simply playing every point as if it were the last; they indicated that it was an effective means of ignoring a past and providing a best possible future, while attending to the present.

Sportsmanship

Nearly without exception, the athletes in the study indicated that sportsmanship has a role in the development of a champion--and in the determination of *who is* a champion. The champions respected a competitor who competed with all his physical, emotional and psychological resources, who won graciously, and faced defeat generously, telling his opponent that he was the better player that day. Many of them told stories of acting unsportsmanlike in their developing years, and learning through parents and coaches that their behavior was unacceptable. In most cases, a racquet was taken away, tournament play was terminated by a parent, coach or tennis association, or the child was

given a verbal warning about future consequences. Generally, specific disciplinary action was taken by the parent and the child's experience was one of regret. The champions reported positive attitudinal and behavioral changes as a result of the discipline. Several of the champions recollected a story of Bjorn Borg and sportsmanship. Bjorn said:

> When I was twelve years old, I was throwing my racquet all over the place and cheating all the time. I was a real nut case, hitting balls over the fence--everything. My parents were really ashamed and refused to come to a single match. Suddenly I was suspended for six months by the Swedish Association. . . . I'm determined never to do it [again]. (Borg, Scott, 1980, pp. 39-40)

The Zone

The champions' descriptions of the zone have led the author to the following conclusion about this high performance state:

The zone is a state of consciousness in which one's experience of the world is extra-ordinary. Senses are heightened, while performance is enhanced, and automatic. Ironically, it is this "noticing the noticing" that may eradicate the presence of the zone for the athlete. If there is an orientation to enjoy it while it lasts, one may stay in "it" for an extended period of time. If one tries to harness it, it will surely vanish. If one tries to intellectualize--or understand its presence, it will be fleeting. It is called "unconscious" by many players--and it is aptly named, as it is a reliance on the unconscious mind, whose operations contribute to greater neuromuscular speed, intellectual clarity, and greater automaticity than the processes of the conscious mind, whose efforts, by comparison, are painstakingly laborious. In conclusion, what does one say to the athlete

who is soaring above and beyond previous performances? "Enjoy it, for it will not last. But, within the experience, may you discover a glimpse of that which you are capable."

Despite the splendor of the above-described experience, a competitor would not be advised to wait for, or expect the arrival of this elusive state. Rather, one can create a state of readiness in case the event "happens along." Establishing readiness for such an occurrence would include individualized physical training and nutritional adherence to a proper diet, consistent on-court training, a mental training program (which might include self-talk, visualization, relaxation techniques, ritual adherence, etc.). When athletes talk about what preceded their experience in the zone, they often talk about "life as usual" preceding it: Working hard, being fit and prepared as usual.

Regarding what distinguishes a champion in terms of his on-court prowess is his ability to win despite not playing in the zone, or even near his best capabilities.

Application to Life

> Nowhere is the mind/body connection more evident than in competitive sport, but the lessons we learn there often have their greatest application beyond the tennis court . . . or playing field. They can--and should--be vital lessons for daily living.
>
> James E. Loehr, Toughness Training for Life

Champions generally have learned how to efficiently focus their attention and eliminate distraction. They talked about their capacity to remain calm in the "eye of the storm." And several mentioned that this skill of being able to cope with competitive stress has been generalizable to stressful situations in life.

Many participants in the study said that when they choose to do a task, they are excellence-oriented, and perform their job or endeavor to the best of their ability. Some of them had taken collegiate courses after their professional tennis careers, and spoke of the drive to do exceptional work, as compared with many of their academic peers, who were satisfied to get average grades. Generally, the champions are opposed to mediocrity in their own lives, and strive for excellence.

Sport Psychology

The champions interviewed gave a multiplicity of responses about sport psychology, ranging from very favorable--to quite negative, in two instances. However, what became clear through the course of the interviews was that the champions--whether it was with or without formal training, became familiar with what are considered the acquirable lessons that sport psychology proposes to offer. Some of them learned tenets about competition experientially which they wished they had learned much earlier in their professional careers.

Some of the champions in this study spoke about specific sport psychology interventions which were useful for them. Other participants

mentioned interventions which were utterly ineffective, even while allowing that some ideas had merit and usefulness. And, a couple of the champions debunked sport psychology altogether. One is often considered among the strongest mental competitors in the history of the game; the other has himself been described a "mental toughness master."

Unknown is whether these psychological skills could have been taught effectively to these champions when they were younger, and what they may have accomplished had they learned these "tenets" earlier in their lives. Whether they may have won more tournament titles, found more satisfaction in their careers, and enjoyed "the moment" and the process of competition more is a matter of speculation. Many of the champions indicated, however, that if they were competing today, they would utilize sport psychology consultations.

Whether formally or informally, champions know the terrain of sport psychology. What remains unknown is precisely what the province of genetics is, and what is aquirable through the professional practice of sport psychology.

Tennis is a sport that is governed by quick movement, strength, and fine motor skills. Despite its physical challenges, many of the champions in the study mentioned how very psychologically demanding the sport is. A champion who participated in the study estimates that the role of psychological skill development at the professional level is 95% of what determines who will be victorious.

Sport psychology, a young science, has made great strides in its professional development. In tennis, the discipline is becoming recognized as a critical part of the triad which constitutes superior performance: Biomechanical, physical and psychological training.

Some of the participants in this study made use of applied sport psychology and found it to be instrumental in their success. Several of the champions indicated that they made successful changes immediately following psychological interventions. Still others mentioned that they wished they had been engaged in sport psychology consultations since they were young children, suggesting that they would have become superior competitors--and more competent at managing stress and difficulties in their personal and professional lives.

The researcher suggests that the athletes in this study became champions *in the process* of mastering sport psychological skills. They do not all believe in the practice of sport psychology, but they have all developed many of the skills sport psychology proposes are within its domain. When it comes to competing, their focused abilities are supreme. Some of them have never read a book about sport psychology, yet are expert competitors.

The Role of Coaches and Teachers

The emergent information from this study suggests that the potential role of a coach and teacher in a child's life is immense. The champions in this study profited enormously by the expertise--and the

bond which was formed between teacher and child. That "bond" often facilitated the co-construction of championship dreams, and led to lofty goals, which were concomitant with a powerful work ethic.

Developing a love of the game was most often reported as the essential element in the development of champions. This generally transpired with coaches and teachers (and parents) who introduced the child to the game of tennis in a supportive, interested, but non-intrusive manner. The champions in the study had the benefit of a teacher who had the skill to convey information and make learning fun. The participants had different views about structured academy environments, but most felt they had some merits and some deficits. Included in its merits was the presumed ease of finding a game with competitive peers. Among the deficits were concerns champions had about children leaving home at an early age, focusing single-mindedly on tennis and becoming "burned-out," not having a well-rounded education and missing the regular nurturance from parents and other family members. Several of the participants said they would not have thrived in an academy environment because of what they perceived as excessive structure, and one said that he did not respond favorably when someone told him what to do. Others said that the endless drilling in repetitive patterns (which they believed most academies advocate) would have bored them and made them lose interest in the game. Sometimes the role of the teacher or coach was to expose the student to legendary player champions--and that introduction was instrumental to the furthering of the child's dream development. The emotional bonds that champions in this study formed with coaches and teachers were powerful and had lasting impressions on them.

Correlations with Existent Literature and Previous Research

In the Review of the Literature, Chapter 2 of this study, previous research relevant to this project was examined. Championship development was explored generally, and specific descriptions and analyses of mental toughness, peak performance, psycho-physiological responses to competitive stress, and other subjects were evaluated.

In David Hemery's work (1986), he determined that timing and opportunity were key factors in developing championship achievement. In this project and in that of Hemery's, those factors were significant, as was the support of family and the development of a meaningful relationship with a coach and mentor. Champions frequently reported that they had the support of a near surrogate parent, (in one instance a married couple) in the present study.

Steven Ungerleider (1995) identified five factors that led champions to excel both in sport and after retirement from sporting careers: Focus, desire, aggressiveness, perspective, and perseverance. In the current study, factors of desire, perspective, perseverance and the "never quit" attitude reflect the attitudes of the champions regarding their successes. Conversely, unlike Ungerleider's study, the participants in this study did not report a high incidence of pain and trauma in their personal lives. Rather, their reports indicate that while their athletic successes had been strenuous and demanding, their lives had been well supported by significant others, and conspicuously free of trauma.

George Plimpton (1995) recognizes both an inherent hunger to succeed in many successful athletes--and a strong urge to manifest the utmost of their potentials. In this study of champions, many athletes spoke of a strong desire to accomplish all they were capable of, in order to someday not regret neglecting to give themselves their best opportunity to succeed.

In contrast to George Plimpton's conclusions--that an "X Factor" exists and helps to explains championship phenomena, this study suggests that an "X Factor" and confidence are so inextricably linked, as to be considered inseparable. However, some of the champions in the present study indicate that champions often possess an ability to win that is "mysterious." Generally, Plimptons' words: "savvy, spirit and determination" reflect well the champions retrospective attributions of their successes in this study.

Peak performance is an area of previous research which had high correlation with the findings in the present study. Of greatest correlation was the elusiveness of the zone in its arrival and departure, and the uncertain rationales for its appearance. Common explanations for the zone in this study were that it resulted from training as usual . . . that it could in no way be scheduled, or planned. And that the experience of the zone is one of elation and is to be enjoyed; analyzing its attributes is likely to make this mode of superior and automatic functioning vanish as mysteriously as it appeared. Many of the athletes indicated that they'd experienced the zone only twice or three times in their entire professional

careers; others suggested that they'd often had the experience, but generally in practice matches--not in tournament play.

In the Review of the Literature, numerous aspects of peak performance (the zone) were described: unconscious processes, present focus, calmness, euphoria and invincibility, perfect concentration, detachment, effortlessness and slowing of time or motion, power, balance and supreme happiness, and quietude, aliveness, and controlling destiny (Murphy, White, 1995). The present study confirms the above characteristics of peak performance, with the exception of "detachment" and the experience of "controlling destiny," which were not reported by the champions in the interviews.

Elaborating on the current literature, some of the champions in this study indicated that when they are in this desirable state, their perception is clearer and their anticipation is vastly improved. The author suggests that because anticipation is superior to its usual functioning in this state, the common impression that time is slowing down reflects the truism that exceptional anticipation decreases the need for normal reaction time, and gives the athlete the sense that time is passing slower than usual.

Mental toughness, a theme which was examined in the Review of the Literature, was therein described as a developed state of emotional flexibility, responsiveness, strength, and resilience (Loehr, 1994). The findings of the present study concur with these descriptions, with the exception that some champions don't believe that one can develop these characteristics--but rather that one is born with or without them. Two of

the participants who believed that mental toughness is a developed phenomenon, also believed that "toughness" generally does not develop in the absence of numerous defeats--and that defeats alone will not guarantee the construction of mental toughness. Also necessary in the development of toughness is the willingness to learn from victory and defeat--and the resolve to apply the knowledge in future situations.

Self-complexity (Linville, 1987), another area that was evaluated in the literature review, was described by Goncalves, M. & Norris, E.K., (1996, pp. 15, 16): "The operational definition of self-complexity results from two criteria--the number of self-aspects identified by the person and the degree of differentiation of these aspects." In Linville's work, she suggests that the more areas of self-reference--and the greater differentiation between those self-aspects, the more successful an individual's capability to recover from stressful occurrences. When this concept is applied to athlete's lives, this notion would suggest that various interests and activities would bolster an athletes' capability to adapt to stressful situations (supreme success, or disappointment from defeat, injury, etc.). Several champions in this study suggested that either: a) Their diversification of interests contributed to their successes, or: b) That they might have been more successful than they were if they'd had a variety of interests and pursuits. Almost invariably, the champion participants in this study indicated that a variety of interests could be of great benefit to a competitive athlete--that by having other areas of self-efficacy, a competitor would have an opportunity to become mentally refreshed and could center on his profession with greater focus. The

implications of self-complexity for the competitive athlete are indeed significant.

Implications for Future Research

Emergent from the interviews are data, conclusions, and a wealth of questions which are worthy of future investigation.

Future research in sport psychology could trace champions' retrospective introspections about the origins of confidence. What, for example, might champions say about their relationships with family members and their development of confidence? In this context, some champions in the present study reported a relationship between their imaging success--and their development of confidence. Further, is there a relationship between confidence--and words and narrative, as suggested by Mohammed Ali?: "I am the greatest. I said that even before I knew I was" (Ferguson, 1990, p. 4-23). If the order of his self-portrayal--and self-recognition is accurate, is that pattern a common phenomenon among tennis champions?

Some champions in this study spoke of confidence as a gift that was conferred upon them from another person. Is this a common experience among champions? If so, what implications might this have both for championship development specifically, and for child development, generally?

Future research could address the various styles of parenting that have led to athletic success. In this study it is clear that the majority of parents were supportive and non-demanding. Andrew mentioned that both supportive--and oppressively demanding styles of parenting have resulted in children having very successful tennis careers:

> You hear extremes of parents on both sides, ones like the Sampras' who seem to be very uninvolved, and then you see others who are unbelievably involved, to the point of child abuse, literally. And they've done well, both sides you can say have been successful. In *tennis* [italics added]. You just wonder what it's like in other areas of life . . . overall. (Kevin 1997)

After success has been reached and the career is over, have these children made effective psychological adaptations to life? If so, how have they achieved this?

The zone continues to intrigue, baffle and elude research efforts. Douillard challenges sport and exercise traditions when he asks:

> If we want to reproduce the Zone, doesn't it make more sense that we should reproduce its qualities? If the experience is effortless, then we should cultivate effortlessness, rather than push the body to its limits. It seems naive and foolish to expect the light, comfortable, euphoric feeling of the Zone to come with any regularity after the mind has driven the body into exhaustion. (Douillard, 1994, pp. 4-5).

Douillard's challenge is worthy of investigation, and future research in sport psychology could examine the nature and frequency of the zone, as reported by athletes who exercise "lightly," and

"comfortably." However, it is certain that the athletes in this study did not report achieving the zone without displaying disciplined effort and intense training beforehand--both in practice sessions and in previous competitions.

The author speculates that a future research tool might be developed--an unobtrusive chip, clasp or instrument whose purpose would be to measure encephalographic [EEG] activity. Were sports participants to regularly wear such a device when participating in athletics, brain wave activity could be measured during the experiences of being in and out of the zone. Since humans have demonstrated the capacity to achieve desired brain wave activity (Ornstein, 1997), the zone might become more readily reproducible.

Many of the champions who participated in this study indicated that they have been competitive for as long as they can remember--and for as long as their parents can remember. Future research may address the personal history of competitiveness in the lives of champions. Do numerous champions believe that they have always been competitive? Do parents' recollections correlate with the champions' introspections? Additionally, future research should examine whether champions are able to--or care to keep the bounds of their competitiveness within the arena of sport. Or--is their desire to win manifest in every aspect of their lives?

An implication for the development of sport psychology is in regard to *who* teaches sport psychology skills, and *how*. Sport psychologists and coaches sometimes work at cross purposes in their

efforts to teach adaptive skills to children such as gaining perspective on the relative importance of a tennis match, self-management skills of relaxation, self-talk, focusing, goal-setting, etc. Future research could address who can most effectively impart these skills and what the bounds of each domain include. Preliminary investigation suggests that being a sport psychologist *and* an athlete's coach is a dual relationship that should be avoided. Are there examples of management of this dual relationship that have been successful (as determined by both client and helper)? What boundaries and considerations are involved? When might such involvement be indicated, if ever?

In closing, almost without exception--and without hesitation, nearly every athlete in the study indicated that if they were a child today, they would not hesitate to pursue the career of a tennis touring professional. Most of the champions added that their career choice afforded them the opportunity to fulfill their athletic prowess, to see the world, and to live well. When asked whether they would again pursue the career of tennis professional, several of the participants responded, as did one: "What could be better?"

APPENDICES

APPENDIX A

LETTER OF INVITATION TO CHAMPIONS

(Date)

318 Ogden Street
Sarasota, FL 34242
July 31, 1997

Dear _____,

In conversations with Drs. Paul Roetert and Ron Woods of the United States Tennis Association, we have identified a critical need--to explore how tennis champions develop.

We conclude that champions have a wealth of information about significant factors in their championship development. Your shared experience and knowledge would be invaluable in helping us better understand championship level performance. It would also help many talented players who aspire to be champions.

Please consider joining a select group of elite champions by participating in an important new study. Participation would take only two hours of personal interview. With your permission, the interview would be audio taped in order to accurately transcribe our discussion. Interviews will be strictly confidential and written interpretations will not have identifying information, unless otherwise requested by you.

This study is part of my doctoral dissertation for the University of Massachusetts, with the support of the U.S.T.A. As director of this study, I will telephone you soon. We hope you will participate and schedule an interview during the month of September, 1997.

I look forward to meeting you. We hope you will join other champions in this important project.

Sincerely,

Ned Norris, Director
Study of Champions
University of Massachusetts

cc: Paul Roetert, Ph.D., U.S.T.A.
Ron Woods, Ph.D., U.S.T.A.

APPENDIX B

INFORMED CONSENT FORM

I agree to participate in the research study conducted by Ned Norris, a doctoral candidate at the University of Massuchetts. I understand that the research involves the study of how tennis champions develop, and that my experiences and insights as a champion may be useful to this study -- and to aspiring tennis competitors. I have agreed to participate in an interview which will last approximately two hours, as part of this study.

I have been assured that any information I offer will be kept strictly confidential. All names and identifying references will be changed. I understand that the interview will be audio tape recorded and that all audio tapes will be erased following transcription. The tapes will be transcribed by Ned Norris, further assuring my anonymity and the confidentiality of the information.

The researcher and I have discussed the general nature of this study. I understand that I can withdraw from the study at any time during the interview. Should I choose to withdraw, all audio tapes will be destroyed.

A copy of the summarized transcript will be made available to me for my review, approval, and for any corrections I wish to make. I understand that I may also have access to the dissertation and other written materials derived from this study at its conclusion.

I am aware that there is no monetary compensation for participation in this study.

I have read the above statements and discussed them to my satisfaction with Ned Norris. He has answered any questions I had about the study and I willingly agree to participate in this study.

_____ _____

Date Signature of Participant

APPENDIX C

INTERVIEW GUIDE

The following are formal questions generated by the interviewer. They were reformatted into layman's terms where necessary. The questions served as a guide to stimulate the thinking of champions and to precipitate retrospective introspection about how they became champions. The interview took the shape that is consistent with phenomenological research . . . open-ended, wherein "prompts" were utilized if and when there was a lull or a lack of material generated. So as not to disorient the participant to a questionnaire type of study, the following questions were asked only when their content was not emergent in the course of the phenomenological in-depth interviews.

1. • How do you define "champion"?

2. • What are the characteristics, traits and factors that you possess that made you a champion?

3. • What are the social factors (family, coach, peers, etc.) that contributed to your success?

4 • Was there a deciding factor . . . a defining moment or an incident that occurred--after which you knew you would dedicate a lot of your time and focus to becoming a champion?

5. • Were you highly motivated? Were you primarily self-motivated or motivated by other people? What contributed to the motivation you had? What detracted from it?

6. • What is mental toughness? Can it be learned or is it "in the genes?"

7. • Do you--or did you have mental toughness? If yes, what contributed to the development of your mental toughness?

8. • If you do--or did have mental toughness, are there ways in which mental toughness that you learned or used in your sport has had application and usefulness in your personal life--off the court?

9. • What is the "killer instinct"? Do--or did you have it? Is it necessary to have "it" in order to become a champion?

10. • Did you ever consider yourself a "choker"? Do you think you were ever considered a "choker" by others (players, coaches, spectators)? Did you dissuade yourself and/or others about this appraisal of you? If so, how did you do that? Was there a defining moment when that occurred?

11. • Was there another sport that contributed to your development in tennis, either physical or psychological?

12. • When you were competing, did you have and pursue many different interests--or few? How has that contributed to--or detracted from your success?

13. • How has emotion (too much, too little, just right) contributed to--or detracted from your success? If it's important to regulate one's emotions on the court, how should one do this?

14. • Was your approach to your sport more outcome (result) or process (experience) oriented? Did your orientation lend itself well to your successes? Would you have fared better being either more contained--or more expressive on the court?

15. • Have you ever experienced a peak performance in your sport?

16. • Did you ever experience the automatic functioning described as "being in the zone"? What was your explanation for the "zone"-- and how you got into that mode of functioning? What were the aftereffects of such a performance? Elation? Contentment? Depression? What meaning did you make about that experience? e.g., why it occurred, how to facilitate its re-occurrence, etc.? Did the experience alter your notions about your own athletic limitations, or lack thereof?

17. • Does reflecting on a personal moment of peak performance (e.g., a particular win--or a day when everything was effortless and accurate, etc.) help you when you're clearly not in the "zone"?

18. • How did you manage to triumph even when you weren't in the zone or experiencing a peak performance?

19. • Were there aspects of being or becoming a great performer that helped you with personal hardships (e.g., personal life changes, death of a loved one, retirement, new career development, etc.)?

20. Were there lessons that you learned from competing that have been applicable to other demands of life--or life-skill development?

21. • Were you ever sent away in your formative years to develop your skills at a camp or an academy? If so, was this experience useful for you in your championship development? If so, were there any negatives you associate with this experience . . . anything you regret?

22. • If you had an opportunity to do it all over again--would you? If so, what would you change about the way you did it the first time, if anything?

23. • Did you ever feel as though you were training for your championship goals in order to avoid other hardships of life? For example some runners have reported that they literally were running away from the pain they felt in childhood, etc. (Ungerleider, 1995, p. xvi).

24. • What is the best thing about becoming and being a champion? What is the worst thing about becoming and being a champion? Are there post-championship pressures? What are they? Are they surmountable? How? What about pressures from yourself . . . the champion?

25. • What would it take to become a champion today versus when you became a champion? Are there similarities? Differences?

26. • Why do you suppose so many American juniors are not performing up to par at the international level in competitive tennis--and are dropping out of tournament participation? What, if anything, should be done about this?

27. • Has sport psychology contributed to your championship development? If so, how so?

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